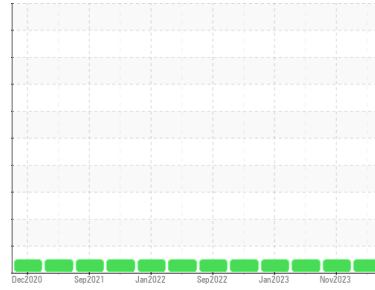


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**2026790**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (--- QTS)**

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### 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>PCA0118411</b>  | PCA0102459    | PCA0101175  |        |
| Sample Date   | Client Info | <b>28 Feb 2024</b> | 26 Nov 2023   | 26 Aug 2023 |        |
| Machine Age   | mls         | Client Info        | <b>352125</b> | 329112      | 311352 |
| Oil Age       | mls         | Client Info        | <b>20000</b>  | 40000       | 20000  |
| Oil Changed   | Client Info | <b>Not Changed</b> | Changed       | Not 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>26</b>    | 21       | 17       |
| Chromium | ppm ASTM D5185m >20  | <b>&lt;1</b> | <1       | <1       |
| Nickel   | ppm ASTM D5185m >4   | <b>2</b>     | <1       | <1       |
| Titanium | ppm ASTM D5185m      | <b>17</b>    | 1        | 1        |
| Silver   | ppm ASTM D5185m >3   | <b>0</b>     | 0        | 0        |
| Aluminum | ppm ASTM D5185m >20  | <b>2</b>     | 2        | 4        |
| Lead     | ppm ASTM D5185m >40  | <b>&lt;1</b> | <1       | 0        |
| Copper   | ppm ASTM D5185m >330 | <b>6</b>     | 7        | 5        |
| Tin      | ppm ASTM D5185m >15  | <b>&lt;1</b> | <1       | <1       |
| Vanadium | ppm ASTM D5185m      | <b>0</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>    | 0        | 2        |
| Barium     | ppm ASTM D5185m 0    | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm ASTM D5185m 50   | <b>44</b>    | 56       | 68       |
| Manganese  | ppm ASTM D5185m 0    | <b>&lt;1</b> | <1       | <1       |
| Magnesium  | ppm ASTM D5185m 950  | <b>771</b>   | 853      | 1016     |
| Calcium    | ppm ASTM D5185m 1050 | <b>1170</b>  | 1076     | 1157     |
| Phosphorus | ppm ASTM D5185m 995  | <b>987</b>   | 913      | 1061     |
| Zinc       | ppm ASTM D5185m 1180 | <b>1171</b>  | 1090     | 1282     |
| Sulfur     | ppm ASTM D5185m 2600 | <b>3552</b>  | 2680     | 3759     |

### CONTAMINANTS

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

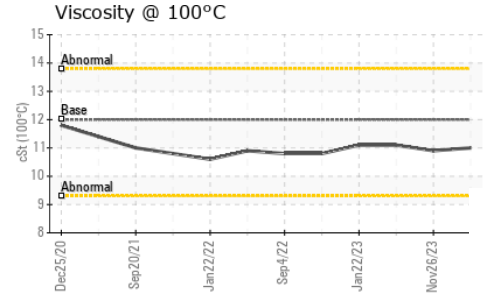
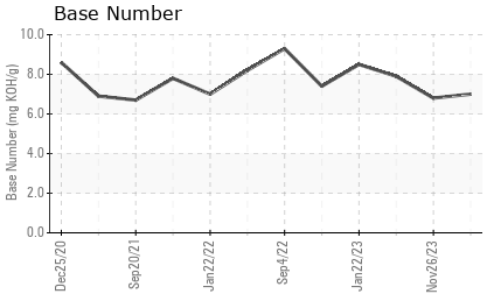
### INFRA-RED

| method    | limit/base               | current     | history1 | history2 |
|-----------|--------------------------|-------------|----------|----------|
| Soot %    | % *ASTM D7844 >3         | <b>0.3</b>  | 0.4      | 0.3      |
| Nitration | Abs/cm *ASTM D7624 >20   | <b>9.1</b>  | 9.1      | 7.4      |
| Sulfation | Abs/.1mm *ASTM D7415 >30 | <b>18.9</b> | 19.9     | 18.1     |

### FLUID DEGRADATION

| method           | limit/base               | current     | history1 | history2 |
|------------------|--------------------------|-------------|----------|----------|
| Oxidation        | Abs/.1mm *ASTM D7414 >25 | <b>15.2</b> | 15.6     | 13.7     |
| Base Number (BN) | mg KOH/g ASTM D2896      | <b>7.0</b>  | 6.8      | 7.9      |

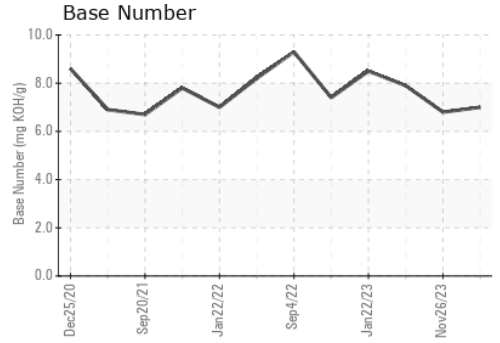
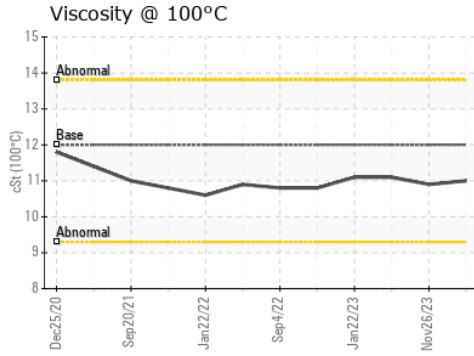
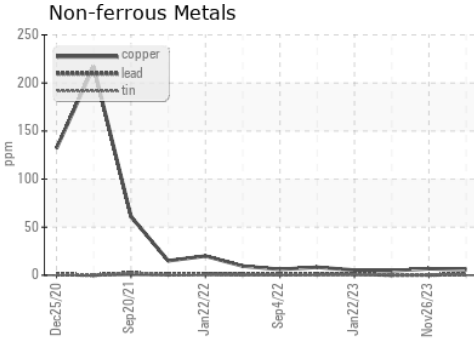
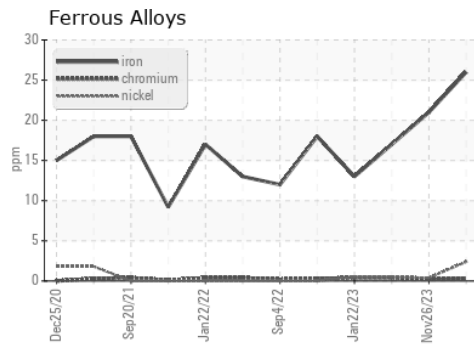
# OIL ANALYSIS REPORT



| 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   | <b>11.0</b> | 10.9     | 11.1 |

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0118411 **Received** : 13 Mar 2024  
**Lab Number** : **06117707** **Tested** : 14 Mar 2024  
**Unique Number** : 10926540 **Diagnosed** : 15 Mar 2024 - Don Baldrige  
**Test Package** : FLEET

**PERDUE FARMS - SALISBURY**  
 7036 ZION CHURCH ROAD  
 SALISBURY, MD  
 US 21802  
 Contact: RICHARD O'NEAL  
 richard.oneal@perdue.com  
 T: (410)543-3628  
 F: (410)341-2164

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)