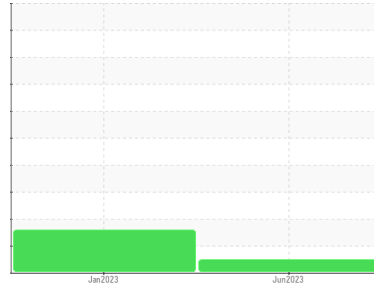


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**2126937**

Component  
**Diesel Engine**

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

## 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>PCA0100165</b>  | PCA0090094  | ---      |
| Sample Date   | Client Info |             | <b>28 Jun 2023</b> | 11 Jan 2023 | ---      |
| Machine Age   | mls         | Client Info | <b>0</b>           | 0           | ---      |
| Oil Age       | mls         | Client Info | <b>20000</b>       | 20000       | ---      |
| Oil Changed   | Client Info |             | <b>Not Chngd</b>   | Not Chngd   | ---      |
| Sample Status |             |             | <b>NORMAL</b>      | ABNORMAL    | ---      |

## CONTAMINATION

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

## WEAR METALS

|          | method | limit/base       | current      | history1 | history2 |
|----------|--------|------------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >100 | <b>21</b>    | 41       | ---      |
| Chromium | ppm    | ASTM D5185m >20  | <b>&lt;1</b> | <1       | ---      |
| Nickel   | ppm    | ASTM D5185m >4   | <b>&lt;1</b> | <1       | ---      |
| Titanium | ppm    | ASTM D5185m      | <b>&lt;1</b> | <1       | ---      |
| Silver   | ppm    | ASTM D5185m >3   | <b>&lt;1</b> | 1        | ---      |
| Aluminum | ppm    | ASTM D5185m >20  | <b>10</b>    | 31       | ---      |
| Lead     | ppm    | ASTM D5185m >40  | <b>2</b>     | 2        | ---      |
| Copper   | ppm    | ASTM D5185m >330 | <b>117</b>   | 188      | ---      |
| Tin      | ppm    | ASTM D5185m >15  | <b>2</b>     | 6        | ---      |
| Vanadium | ppm    | ASTM D5185m      | <b>0</b>     | 0        | ---      |
| Cadmium  | ppm    | ASTM D5185m      | <b>0</b>     | 0        | ---      |

## ADDITIVES

|            | method | limit/base       | current     | history1 | history2 |
|------------|--------|------------------|-------------|----------|----------|
| Boron      | ppm    | ASTM D5185m 2    | <b>5</b>    | 258      | ---      |
| Barium     | ppm    | ASTM D5185m 0    | <b>0</b>    | <1       | ---      |
| Molybdenum | ppm    | ASTM D5185m 50   | <b>69</b>   | 122      | ---      |
| Manganese  | ppm    | ASTM D5185m 0    | <b>1</b>    | 5        | ---      |
| Magnesium  | ppm    | ASTM D5185m 950  | <b>928</b>  | 674      | ---      |
| Calcium    | ppm    | ASTM D5185m 1050 | <b>1205</b> | 1514     | ---      |
| Phosphorus | ppm    | ASTM D5185m 995  | <b>1023</b> | 654      | ---      |
| Zinc       | ppm    | ASTM D5185m 1180 | <b>1232</b> | 791      | ---      |
| Sulfur     | ppm    | ASTM D5185m 2600 | <b>3198</b> | 2685     | ---      |

## CONTAMINANTS

|           | method | limit/base      | current   | history1 | history2 |
|-----------|--------|-----------------|-----------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >25 | <b>8</b>  | ▲ 37     | ---      |
| Sodium    | ppm    | ASTM D5185m     | <b>1</b>  | 5        | ---      |
| Potassium | ppm    | ASTM D5185m >20 | <b>31</b> | 93       | ---      |

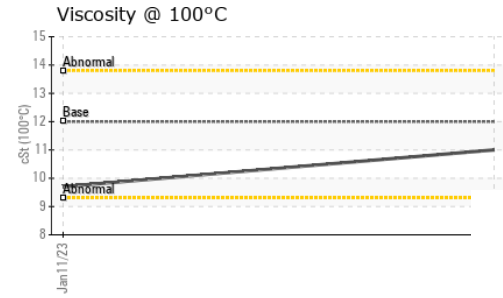
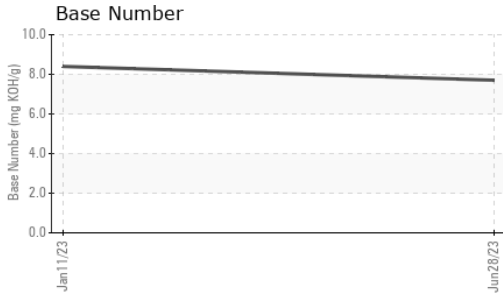
## INFRA-RED

|           | method   | limit/base      | current     | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 >3  | <b>0.4</b>  | 0.3      | ---      |
| Nitration | Abs/cm   | *ASTM D7624 >20 | <b>8.5</b>  | 10.0     | ---      |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | <b>20.0</b> | 24.4     | ---      |

## FLUID DEGRADATION

|                  | method   | limit/base      | current     | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Oxidation        | Abs/.1mm | *ASTM D7414 >25 | <b>15.9</b> | 22.0     | ---      |
| Base Number (BN) | mg KOH/g | ASTM D2896      | <b>7.7</b>  | 8.4      | ---      |

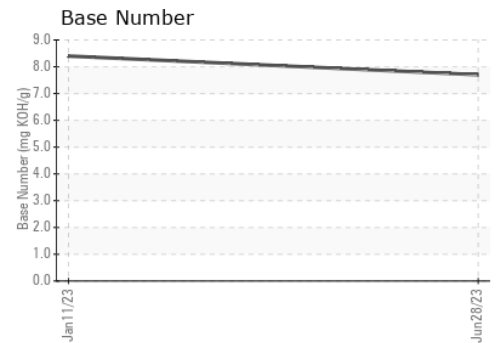
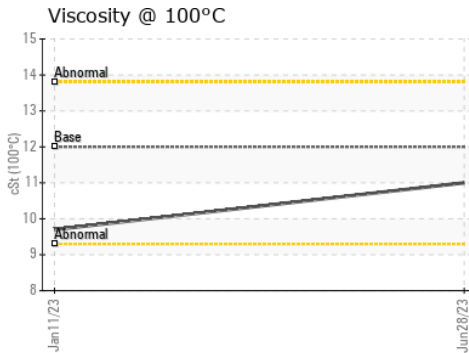
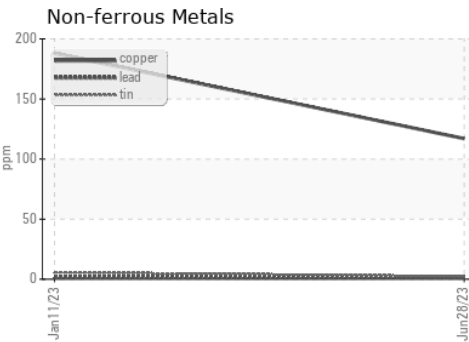
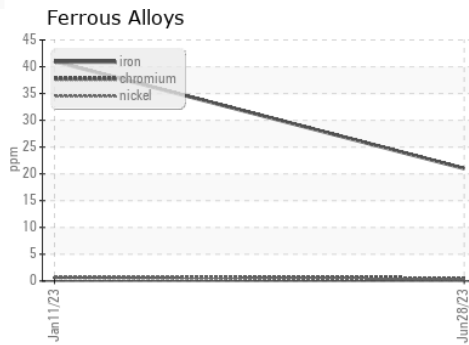
# OIL ANALYSIS REPORT



| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| 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 | history1    | history2 |     |
|------------------|--------|------------|---------|-------------|----------|-----|
| Visc @ 100°C     | cSt    | ASTM D445  | 12.00   | <b>11.0</b> | 9.7      | --- |

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0100165 **Received** : 22 Aug 2023  
**Lab Number** : **05930748** **Diagnosed** : 22 Aug 2023  
**Unique Number** : 10616019 **Diagnostician** : Wes Davis  
**Test Package** : FLEET

**PERDUE FARMS - GEORGETOWN**  
 20621 SAVANAH RD  
 GEORGETOWN, DE  
 US 19947  
 Contact: ROBERT LOCKWOOD  
 Robert.Lockwood@Perdue.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:  
F: