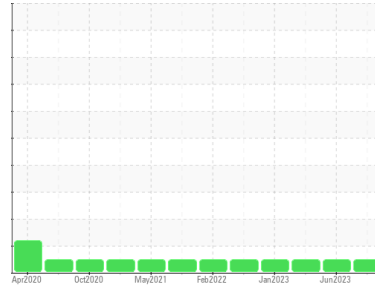


# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**1926740**  
 Component  
**Diesel Engine**  
 Fluid  
**PETRO CANADA DURON SHP 10W30 (35 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>PCA0114767</b>  | PCA0099919  | PCA0094438  |
| Sample Date   | Client Info |             | <b>11 Feb 2024</b> | 04 Jun 2023 | 06 Mar 2023 |
| Machine Age   | mls         | Client Info | <b>0</b>           | 0           | 253247      |
| Oil Age       | mls         | Client Info | <b>20000</b>       | 40000       | 18024       |
| 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>19</b>    | 31       | 13       |
| Chromium | ppm    | ASTM D5185m >20  | <b>&lt;1</b> | <1       | <1       |
| Nickel   | ppm    | ASTM D5185m >4   | <b>&lt;1</b> | 1        | <1       |
| Titanium | ppm    | ASTM D5185m      | <b>36</b>    | 6        | 6        |
| Silver   | ppm    | ASTM D5185m >3   | <b>&lt;1</b> | 0        | 0        |
| Aluminum | ppm    | ASTM D5185m >20  | <b>2</b>     | 2        | 2        |
| Lead     | ppm    | ASTM D5185m >40  | <b>2</b>     | 2        | 0        |
| Copper   | ppm    | ASTM D5185m >330 | <b>5</b>     | 8        | 4        |
| Tin      | ppm    | ASTM D5185m >15  | <b>1</b>     | 2        | <1       |
| Vanadium | ppm    | ASTM D5185m      | <b>&lt;1</b> | 0        | 0        |
| Cadmium  | ppm    | ASTM D5185m      | <b>&lt;1</b> | 0        | 0        |

### ADDITIVES

|            | method | limit/base       | current     | history1 | history2 |
|------------|--------|------------------|-------------|----------|----------|
| Boron      | ppm    | ASTM D5185m 2    | <b>21</b>   | 2        | 3        |
| Barium     | ppm    | ASTM D5185m 0    | <b>0</b>    | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185m 50   | <b>25</b>   | 59       | 49       |
| Manganese  | ppm    | ASTM D5185m 0    | <b>1</b>    | <1       | <1       |
| Magnesium  | ppm    | ASTM D5185m 950  | <b>559</b>  | 901      | 783      |
| Calcium    | ppm    | ASTM D5185m 1050 | <b>1364</b> | 1211     | 1082     |
| Phosphorus | ppm    | ASTM D5185m 995  | <b>910</b>  | 988      | 902      |
| Zinc       | ppm    | ASTM D5185m 1180 | <b>1030</b> | 1246     | 1072     |
| Sulfur     | ppm    | ASTM D5185m 2600 | <b>3609</b> | 3034     | 3293     |

### CONTAMINANTS

|           | method | limit/base      | current  | history1 | history2 |
|-----------|--------|-----------------|----------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >25 | <b>5</b> | 5        | 3        |
| Sodium    | ppm    | ASTM D5185m     | <b>6</b> | 14       | 7        |
| Potassium | ppm    | ASTM D5185m >20 | <b>5</b> | 4        | 2        |

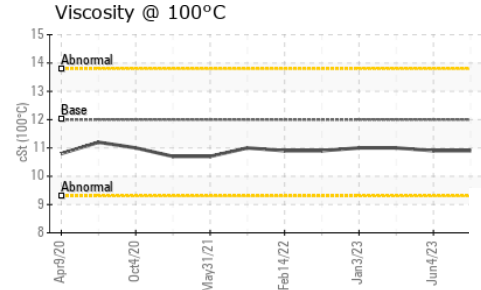
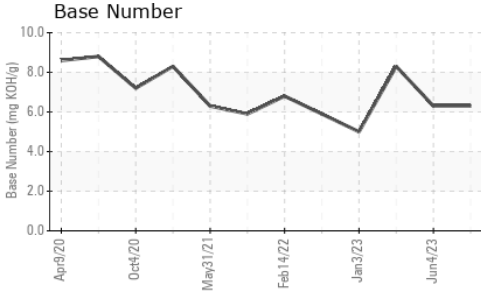
### INFRA-RED

|           | method   | limit/base      | current     | history1 | history2 |
|-----------|----------|-----------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 >3  | <b>0.4</b>  | 0.5      | 0.3      |
| Nitration | Abs/cm   | *ASTM D7624 >20 | <b>9.0</b>  | 9.7      | 7.9      |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | <b>20.5</b> | 21.2     | 19.5     |

### FLUID DEGRADATION

|                  | method   | limit/base      | current     | history1 | history2 |
|------------------|----------|-----------------|-------------|----------|----------|
| Oxidation        | Abs/.1mm | *ASTM D7414 >25 | <b>16.0</b> | 17.3     | 15.2     |
| Base Number (BN) | mg KOH/g | ASTM D2896      | <b>6.3</b>  | 6.3      | 8.3      |

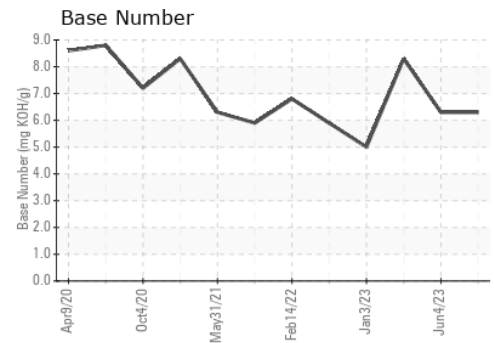
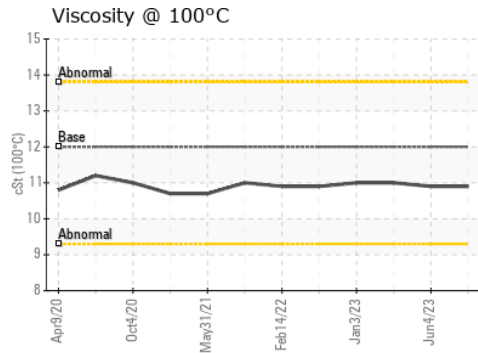
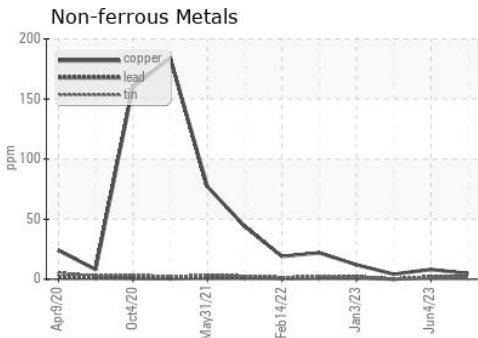
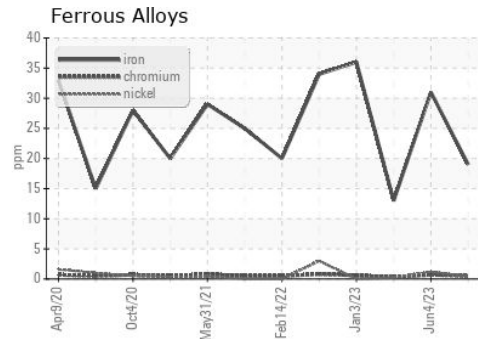
# OIL ANALYSIS REPORT



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

## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0114767  
**Lab Number** : **06118047**  
**Unique Number** : 10926880  
**Test Package** : FLEET  
**Received** : 14 Mar 2024  
**Tested** : 15 Mar 2024  
**Diagnosed** : 15 Mar 2024 - Wes Davis

**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: