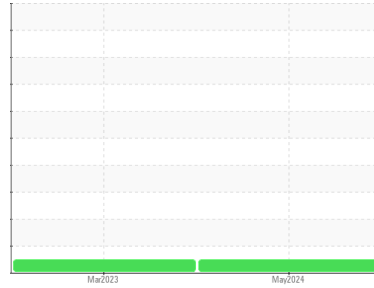




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id

**258**

Component

**Diesel Engine**

Fluid

**PRIMROSE 790 Syn-O-Gen 8 (--- GAL)**

### 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>WC0925564</b>   | WC0584562   | ---      |
| Sample Date        | Client Info |             |            | <b>09 May 2024</b> | 30 Mar 2023 | ---      |
| Machine Age        | mls         | Client Info |            | <b>616635</b>      | 574750      | ---      |
| Oil Age            | mls         | Client Info |            | <b>30000</b>       | 30112       | ---      |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | Changed     | ---      |
| Sample Status      |             |             |            | <b>NORMAL</b>      | NORMAL      | ---      |

| CONTAMINATION |           | method | limit/base | current        | history1 | history2 |
|---------------|-----------|--------|------------|----------------|----------|----------|
| Fuel          | WC Method | >2.0   |            | <b>&lt;1.0</b> | <1.0     | ---      |
| Water         | WC Method | >0.2   |            | <b>NEG</b>     | NEG      | ---      |
| Glycol        | WC Method |        |            | <b>NEG</b>     | NEG      | ---      |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >100       | <b>38</b>    | 45       | ---      |
| Chromium    | ppm | ASTM D5185m | >20        | <b>2</b>     | 4        | ---      |
| Nickel      | ppm | ASTM D5185m | >4         | <b>&lt;1</b> | 1        | ---      |
| Titanium    | ppm | ASTM D5185m |            | <b>0</b>     | <1       | ---      |
| Silver      | ppm | ASTM D5185m | >3         | <b>0</b>     | 0        | ---      |
| Aluminum    | ppm | ASTM D5185m | >20        | <b>5</b>     | 6        | ---      |
| Lead        | ppm | ASTM D5185m | >40        | <b>8</b>     | 11       | ---      |
| Copper      | ppm | ASTM D5185m | >330       | <b>3</b>     | 12       | ---      |
| Tin         | ppm | ASTM D5185m | >15        | <b>1</b>     | 4        | ---      |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | <1       | ---      |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | ---      |

| ADDITIVES  |     | method      | limit/base | current     | history1 | history2 |
|------------|-----|-------------|------------|-------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>130</b>  | 142      | ---      |
| Barium     | ppm | ASTM D5185m |            | <b>1</b>    | 6        | ---      |
| Molybdenum | ppm | ASTM D5185m |            | <b>91</b>   | 92       | ---      |
| Manganese  | ppm | ASTM D5185m |            | <b>1</b>    | 2        | ---      |
| Magnesium  | ppm | ASTM D5185m |            | <b>471</b>  | 421      | ---      |
| Calcium    | ppm | ASTM D5185m |            | <b>1595</b> | 1478     | ---      |
| Phosphorus | ppm | ASTM D5185m |            | <b>1127</b> | 998      | ---      |
| Zinc       | ppm | ASTM D5185m |            | <b>1337</b> | 1211     | ---      |
| Sulfur     | ppm | ASTM D5185m |            | <b>3685</b> | 2835     | ---      |

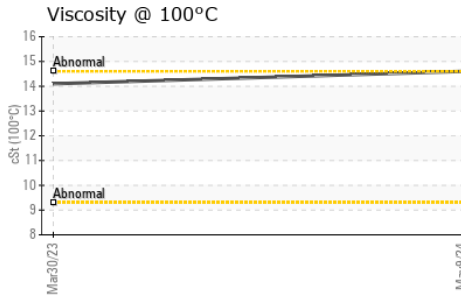
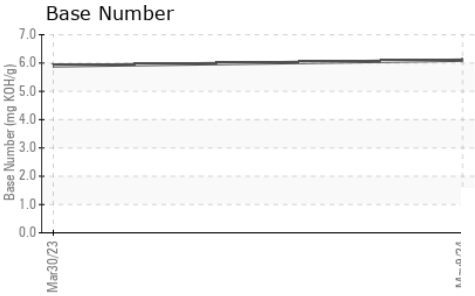
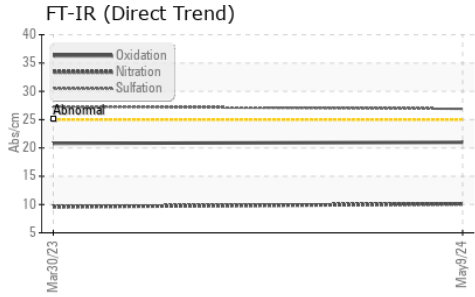
| CONTAMINANTS |     | method      | limit/base | current   | history1 | history2 |
|--------------|-----|-------------|------------|-----------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>19</b> | 23       | ---      |
| Sodium       | ppm | ASTM D5185m |            | <b>4</b>  | 8        | ---      |
| Potassium    | ppm | ASTM D5185m | >20        | <b>5</b>  | 12       | ---      |

| INFRA-RED |          | method      | limit/base | current     | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 | >3         | <b>0.8</b>  | 0.8      | ---      |
| Nitration | Abs/cm   | *ASTM D7624 | >20        | <b>10.1</b> | 9.6      | ---      |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30        | <b>26.9</b> | 27.3     | ---      |

| FLUID DEGRADATION |          | method      | limit/base | current     | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation         | Abs/.1mm | *ASTM D7414 | >25        | <b>21.0</b> | 20.8     | ---      |
| Base Number (BN)  | mg KOH/g | ASTM D2896  |            | <b>6.1</b>  | 5.9      | ---      |



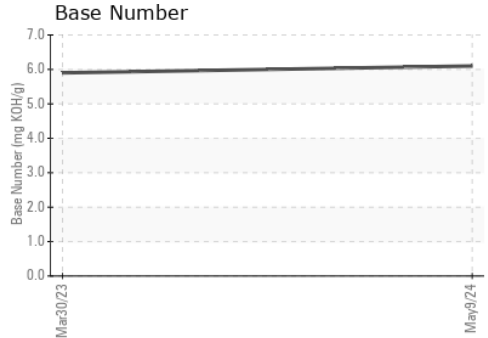
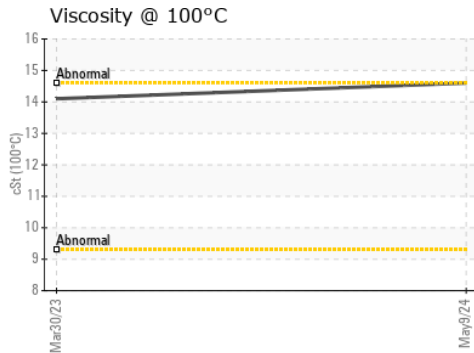
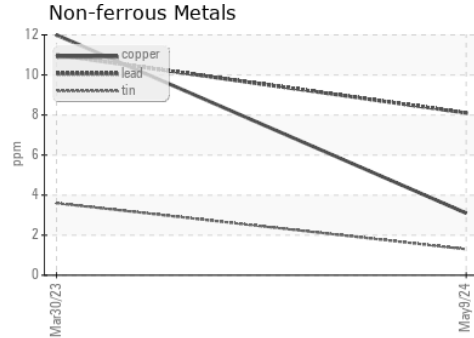
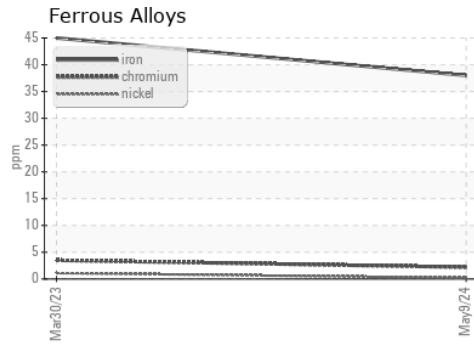
# OIL ANALYSIS REPORT



| 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  | <b>14.6</b> | 14.1     | ---      |

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0925564      **Received** : 10 May 2024  
**Lab Number** : **06175125**      **Tested** : 13 May 2024  
**Unique Number** : 11021178      **Diagnosed** : 13 May 2024 - Wes Davis  
**Test Package** : FLEET

**MIDDLESBORO COCA-COLA BOTTLING - MCCB**  
 1324 E CUMBERLAND AVE  
 MIDDLESBORO, KY  
 US 40965  
 Contact: TIM GOINS  
 tgoins@mccbw.com  
 T: (606)248-0362  
 F: (606)248-1382

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)