

# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**STEM STONE**

Component  
**Diesel Engine**

Fluid  
**DIESEL ENGINE OIL SAE 40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm. Please specify the component make and model with your next sample.

### Wear

Metal levels are typical for a new component breaking in.

### 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>PCA0098385</b>  | ---      | ---      |
| Sample Date   | Client Info |             | <b>15 May 2024</b> | ---      | ---      |
| Machine Age   | mls         | Client Info | <b>30769</b>       | ---      | ---      |
| Oil Age       | mls         | Client Info | <b>0</b>           | ---      | ---      |
| Oil Changed   | Client Info |             | <b>N/A</b>         | ---      | ---      |
| Sample Status |             |             | <b>NORMAL</b>      | ---      | ---      |

## CONTAMINATION

|        | method    | limit/base | current        | history1 | history2 |
|--------|-----------|------------|----------------|----------|----------|
| Fuel   | WC Method | >5         | <b>&lt;1.0</b> | ---      | ---      |
| Water  | WC Method | >0.2       | <b>NEG</b>     | ---      | ---      |
| Glycol | WC Method |            | <b>NEG</b>     | ---      | ---      |

## WEAR METALS

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

## ADDITIVES

|            | method | limit/base  | current | history1     | history2 |
|------------|--------|-------------|---------|--------------|----------|
| Boron      | ppm    | ASTM D5185m | 250     | <b>0</b>     | ---      |
| Barium     | ppm    | ASTM D5185m | 10      | <b>0</b>     | ---      |
| Molybdenum | ppm    | ASTM D5185m | 100     | <b>66</b>    | ---      |
| Manganese  | ppm    | ASTM D5185m |         | <b>&lt;1</b> | ---      |
| Magnesium  | ppm    | ASTM D5185m | 450     | <b>1012</b>  | ---      |
| Calcium    | ppm    | ASTM D5185m | 3000    | <b>1270</b>  | ---      |
| Phosphorus | ppm    | ASTM D5185m | 1150    | <b>1135</b>  | ---      |
| Zinc       | ppm    | ASTM D5185m | 1350    | <b>1315</b>  | ---      |
| Sulfur     | ppm    | ASTM D5185m | 4250    | <b>4046</b>  | ---      |

## CONTAMINANTS

|           | method | limit/base  | current | history1  | history2 |
|-----------|--------|-------------|---------|-----------|----------|
| Silicon   | ppm    | ASTM D5185m | >25     | <b>4</b>  | ---      |
| Sodium    | ppm    | ASTM D5185m | >216    | <b>17</b> | ---      |
| Potassium | ppm    | ASTM D5185m | >20     | <b>3</b>  | ---      |

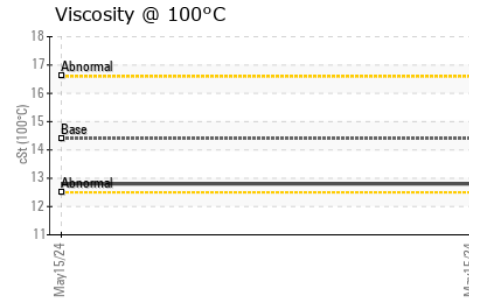
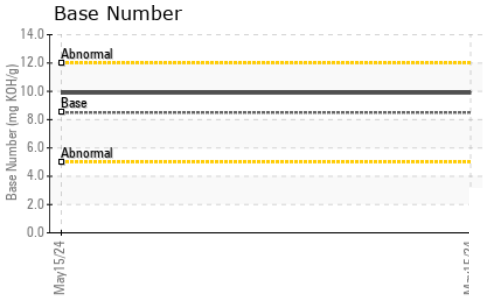
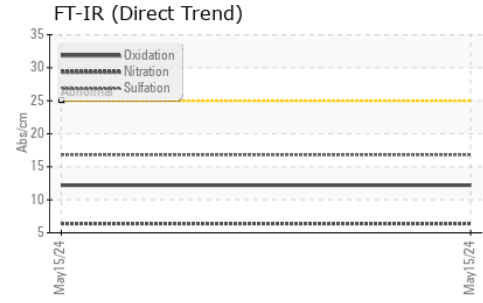
## INFRA-RED

|           | method   | limit/base  | current | history1    | history2 |
|-----------|----------|-------------|---------|-------------|----------|
| Soot %    | %        | *ASTM D7844 | >3      | <b>0.1</b>  | ---      |
| Nitration | Abs/cm   | *ASTM D7624 | >20     | <b>6.4</b>  | ---      |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30     | <b>16.8</b> | ---      |

## FLUID DEGRADATION

|                  | method   | limit/base  | current | history1    | history2 |
|------------------|----------|-------------|---------|-------------|----------|
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25     | <b>12.2</b> | ---      |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 8.5     | <b>9.89</b> | ---      |

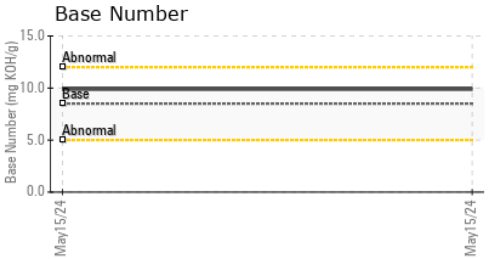
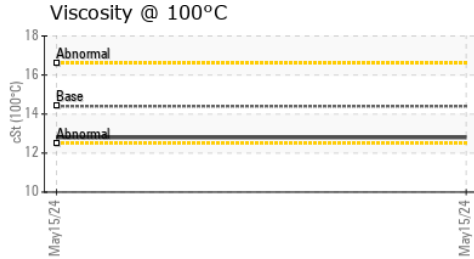
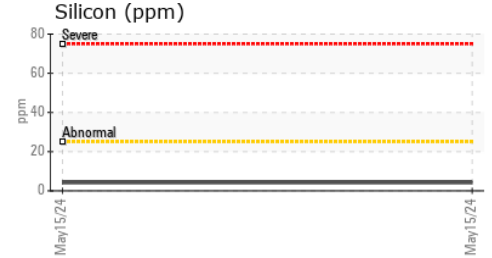
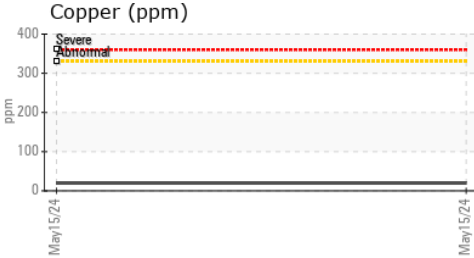
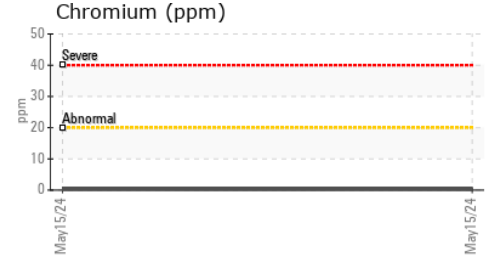
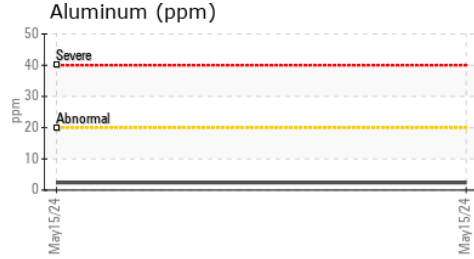
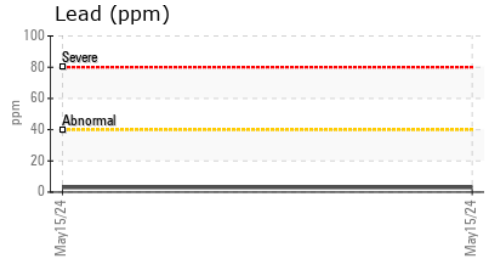
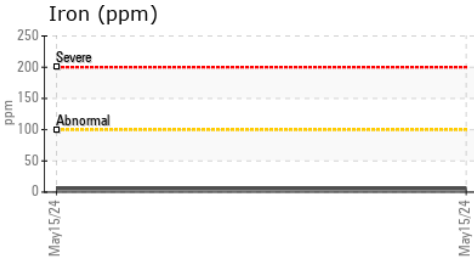
# OIL ANALYSIS REPORT



| 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  | 14.4    | 12.8     | ---      |

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0098385      **Received** : 06 Jun 2024  
**Lab Number** : 06201655      **Tested** : 07 Jun 2024  
**Unique Number** : 11063778      **Diagnosed** : 07 Jun 2024 - Wes Davis  
**Test Package** : MOB 2

**J F PRICE**  
 611 PLEASANT ST  
 E WEYMOUTH, MA  
 US 02189  
 Contact: JOHN LANG  
 gnalj1970@comcast.net  
 T: (617)435-7199  
 F: (781)337-4150

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)