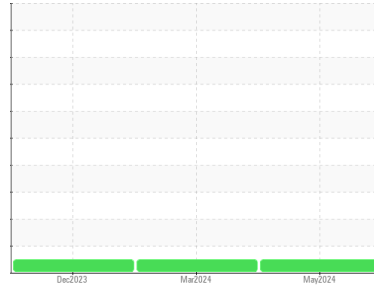




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**OSHKOSH 4418**  
 Component  
**Diesel Engine**  
 Fluid  
**MOBIL 15W40 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### 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>WC0917160</b>   | WC0906195   | WC0878794   |
| Sample Date        | Client Info |             |            | <b>29 May 2024</b> | 15 Mar 2024 | 28 Dec 2023 |
| Machine Age        | mls         | Client Info |            | <b>35380</b>       | 0           | 3573        |
| Oil Age            | mls         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | N/A         | 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>4</b>     | 10       | 4        |
| Chromium    | ppm | ASTM D5185m | >20        | <b>0</b>     | 1        | <1       |
| Nickel      | ppm | ASTM D5185m | >4         | <b>0</b>     | 1        | 0        |
| Titanium    | ppm | ASTM D5185m |            | <b>0</b>     | <1       | <1       |
| Silver      | ppm | ASTM D5185m | >3         | <b>0</b>     | <1       | 0        |
| Aluminum    | ppm | ASTM D5185m | >20        | <b>&lt;1</b> | 2        | <1       |
| Lead        | ppm | ASTM D5185m | >40        | <b>0</b>     | 1        | 0        |
| Copper      | ppm | ASTM D5185m | >330       | <b>0</b>     | 1        | <1       |
| Tin         | ppm | ASTM D5185m | >15        | <b>0</b>     | 1        | <1       |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | <1       | <1       |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 1        | <1       |

| ADDITIVES  |     | method      | limit/base | current     | history1 | history2 |
|------------|-----|-------------|------------|-------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>4</b>    | 4        | 3        |
| Barium     | ppm | ASTM D5185m |            | <b>0</b>    | <1       | 0        |
| Molybdenum | ppm | ASTM D5185m |            | <b>52</b>   | 81       | 53       |
| Manganese  | ppm | ASTM D5185m |            | <b>0</b>    | 1        | <1       |
| Magnesium  | ppm | ASTM D5185m |            | <b>870</b>  | 1327     | 971      |
| Calcium    | ppm | ASTM D5185m |            | <b>1063</b> | 1435     | 1024     |
| Phosphorus | ppm | ASTM D5185m |            | <b>964</b>  | 1555     | 1003     |
| Zinc       | ppm | ASTM D5185m |            | <b>1138</b> | 1702     | 1187     |
| Sulfur     | ppm | ASTM D5185m |            | <b>3371</b> | 4951     | 3020     |

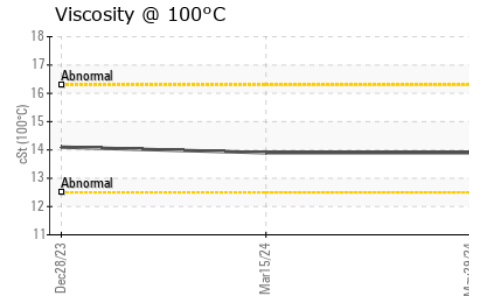
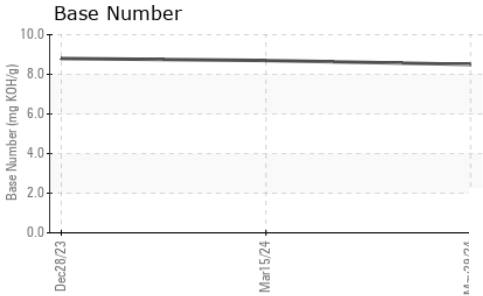
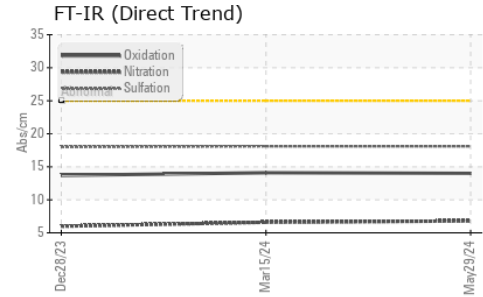
| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>1</b>     | 5        | 3        |
| Sodium       | ppm | ASTM D5185m | >118       | <b>&lt;1</b> | 3        | 1        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>0</b>     | 1        | <1       |

| INFRA-RED |          | method      | limit/base | current     | history1 | history2 |
|-----------|----------|-------------|------------|-------------|----------|----------|
| Soot %    | %        | *ASTM D7844 | >3         | <b>0.2</b>  | 0.2      | 0.2      |
| Nitration | Abs/cm   | *ASTM D7624 | >20        | <b>6.8</b>  | 6.6      | 6.0      |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30        | <b>18.1</b> | 18.1     | 18.0     |

| FLUID DEGRADATION |          | method      | limit/base | current     | history1 | history2 |
|-------------------|----------|-------------|------------|-------------|----------|----------|
| Oxidation         | Abs/.1mm | *ASTM D7414 | >25        | <b>14.0</b> | 14.1     | 13.7     |
| Base Number (BN)  | mg KOH/g | ASTM D2896  |            | <b>8.5</b>  | 8.7      | 8.8      |



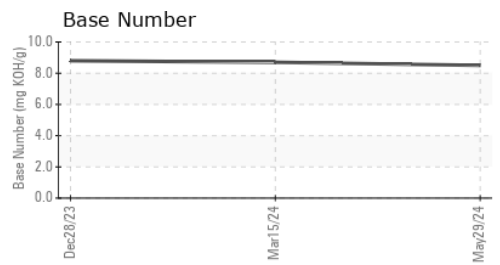
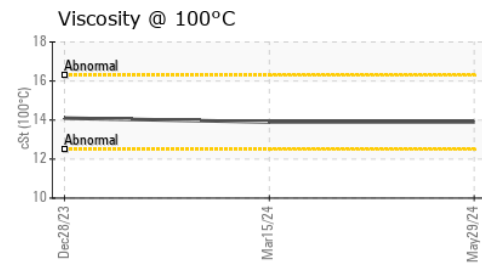
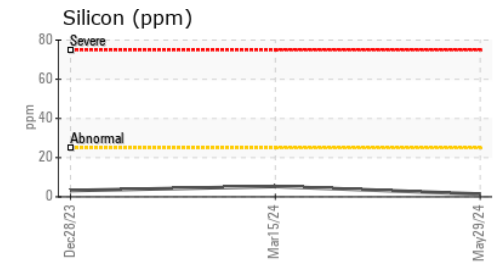
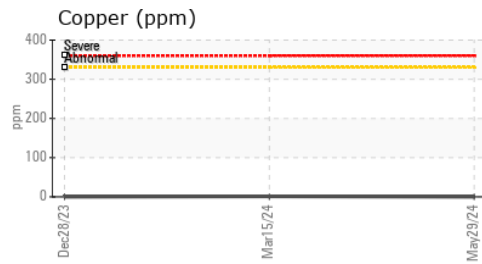
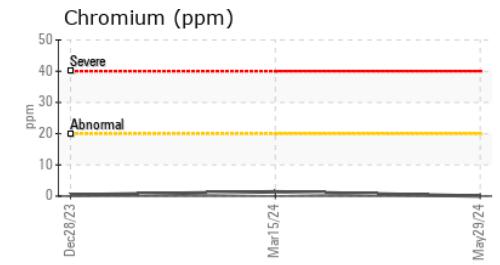
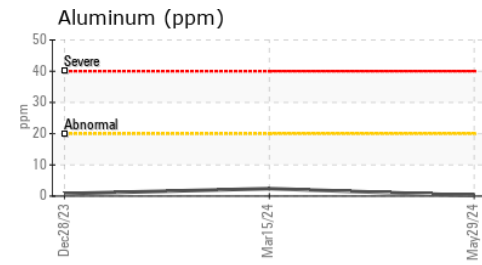
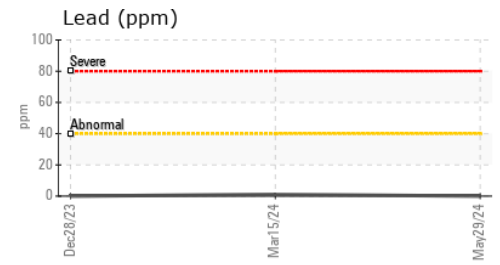
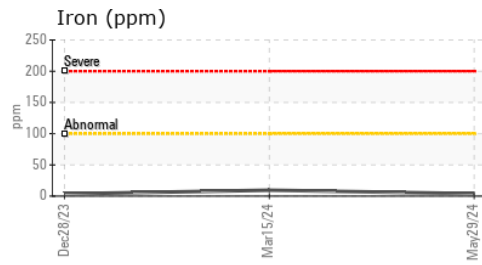
# OIL ANALYSIS REPORT



| 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  | 13.9    | 13.9     | 14.1     |

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0917160      **Received** : 19 Jun 2024  
**Lab Number** : 06214284      **Tested** : 20 Jun 2024  
**Unique Number** : 11087148      **Diagnosed** : 20 Jun 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: TBN )

**CONCRETE SERVICE CO - FAY BLOCK**  
 161 BUILDERS BLVD  
 FAYETTEVILLE, NC  
 US 28301  
 Contact: BRYAN VANNIMAN  
 bryanvanniman@fayblock.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)