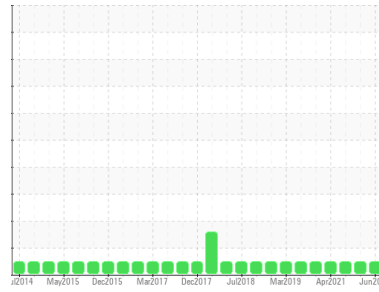




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**OKLAHOMA/105/EG - TRUCK-ON-HWY-HEAVY DUTY**  
 Machine Id  
**08.95 [OKLAHOMA^105^EG - TRUCK-ON-HWY-HEAVY DUTY]**  
 Component  
**Diesel Engine**  
 Fluid  
**MOBIL DELVAC 1300 SUPER15W40 (--- 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>WC0887042</b>   | WC0874056   | WC0643081   |
| Sample Date   | Client Info |             | <b>19 Jun 2024</b> | 09 Nov 2023 | 01 Feb 2022 |
| Machine Age   | hrs         | Client Info | <b>0</b>           | 10176       | 9587        |
| Oil Age       | hrs         | Client Info | <b>0</b>           | 589         | 198         |
| Oil Changed   | Client Info |             | <b>N/A</b>         | Changed     | Changed     |
| Sample Status |             |             | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## CONTAMINATION

|        | method    | limit/base | current        | history1 | history2 |
|--------|-----------|------------|----------------|----------|----------|
| Fuel   | WC Method | >3.0       | <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 | >90     | <b>45</b>    | 66       | 18 |
| Chromium | ppm    | ASTM D5185m | >20     | <b>&lt;1</b> | <1       | <1 |
| Nickel   | ppm    | ASTM D5185m | >2      | <b>&lt;1</b> | 0        | 0  |
| Titanium | ppm    | ASTM D5185m | >2      | <b>0</b>     | 0        | 0  |
| Silver   | ppm    | ASTM D5185m | >2      | <b>0</b>     | 0        | 0  |
| Aluminum | ppm    | ASTM D5185m | >20     | <b>2</b>     | 1        | 3  |
| Lead     | ppm    | ASTM D5185m | >40     | <b>1</b>     | 2        | <1 |
| Copper   | ppm    | ASTM D5185m | >330    | <b>4</b>     | 10       | 5  |
| Tin      | ppm    | ASTM D5185m | >15     | <b>&lt;1</b> | <1       | <1 |
| Antimony | ppm    | ASTM D5185m |         | <b>---</b>   | ---      | 0  |
| Vanadium | ppm    | ASTM D5185m |         | <b>0</b>     | 0        | 0  |
| Cadmium  | ppm    | ASTM D5185m |         | <b>0</b>     | 0        | 0  |

## ADDITIVES

|            | method | limit/base  | current | history1    | history2 |      |
|------------|--------|-------------|---------|-------------|----------|------|
| Boron      | ppm    | ASTM D5185m | 0       | <b>34</b>   | 39       | 81   |
| Barium     | ppm    | ASTM D5185m | 0       | <b>0</b>    | 0        | 0    |
| Molybdenum | ppm    | ASTM D5185m | 0       | <b>38</b>   | 45       | 25   |
| Manganese  | ppm    | ASTM D5185m |         | <b>1</b>    | <1       | <1   |
| Magnesium  | ppm    | ASTM D5185m | 0       | <b>523</b>  | 577      | 625  |
| Calcium    | ppm    | ASTM D5185m |         | <b>1963</b> | 1766     | 1667 |
| Phosphorus | ppm    | ASTM D5185m |         | <b>869</b>  | 844      | 805  |
| Zinc       | ppm    | ASTM D5185m |         | <b>1062</b> | 1032     | 878  |
| Sulfur     | ppm    | ASTM D5185m |         | <b>3514</b> | 2685     | 2064 |

## CONTAMINANTS

|           | method | limit/base  | current | history1 | history2 |   |
|-----------|--------|-------------|---------|----------|----------|---|
| Silicon   | ppm    | ASTM D5185m | >25     | <b>7</b> | 8        | 7 |
| Sodium    | ppm    | ASTM D5185m |         | <b>4</b> | 3        | 2 |
| Potassium | ppm    | ASTM D5185m | >20     | <b>4</b> | 0        | 2 |

## INFRA-RED

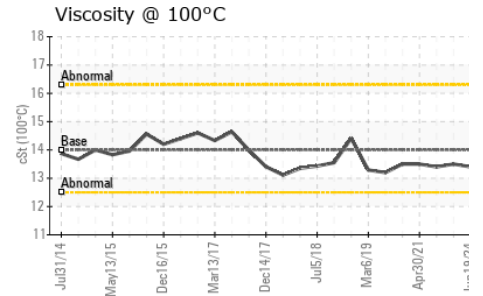
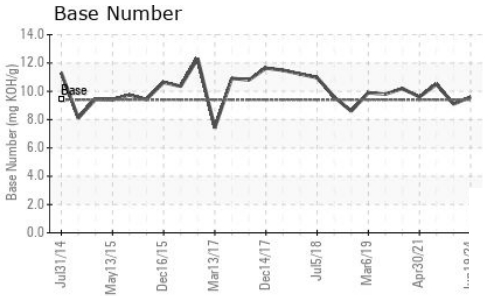
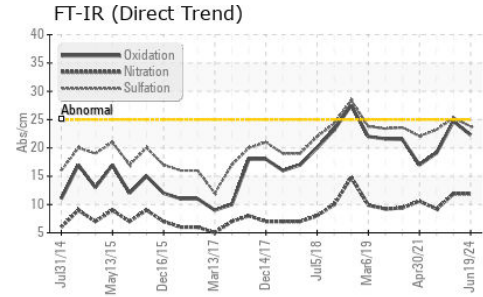
|           | method   | limit/base  | current | history1    | history2 |      |
|-----------|----------|-------------|---------|-------------|----------|------|
| Soot %    | %        | *ASTM D7844 | >6      | <b>0.8</b>  | 0.7      | 0.4  |
| Nitration | Abs/cm   | *ASTM D7624 | >20     | <b>11.9</b> | 11.9     | 9.2  |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30     | <b>23.8</b> | 25.3     | 23.2 |

## FLUID DEGRADATION

|                  | method   | limit/base  | current | history1    | history2 |      |
|------------------|----------|-------------|---------|-------------|----------|------|
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25     | <b>22.3</b> | 24.7     | 19.1 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 9.4     | <b>9.6</b>  | 9.1      | 10.5 |



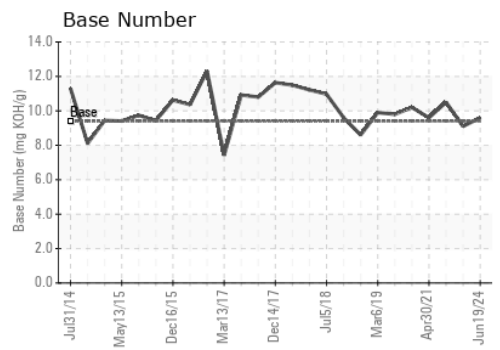
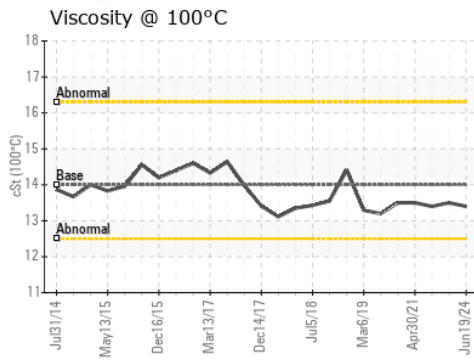
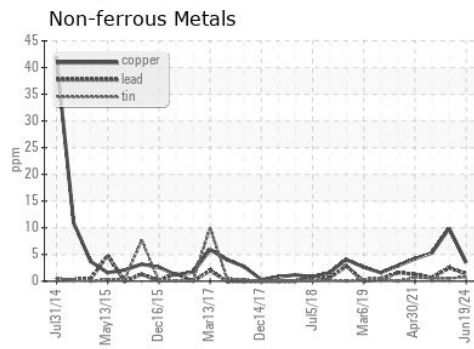
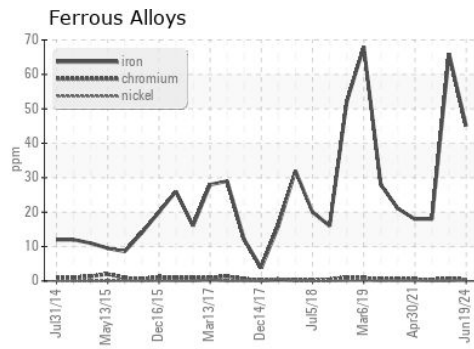
# OIL ANALYSIS REPORT



| 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  | 14      | 13.4     | 13.5     |

### GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0887042      **Received** : 20 Jun 2024  
**Lab Number** : **06215372**      **Tested** : 21 Jun 2024  
**Unique Number** : 11088236      **Diagnosed** : 21 Jun 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**SHERWOOD CONSTRUCTION CO INC**  
 3219 WEST MAY ST  
 WICHITA, KS  
 US 67213  
 Contact: DOUG KING  
 doug.king@sherwood.net  
 T: (316)617-3161  
 F: x:

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)