



# OIL ANALYSIS REPORT

|                 |               |
|-----------------|---------------|
| WEAR            | <b>NORMAL</b> |
| CONTAMINATION   | <b>NORMAL</b> |
| FLUID CONDITION | <b>NORMAL</b> |



Area  
**KANSAS/44**  
Machine Id  
**53.168L [KANSAS^44]**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL DELVAC 1300 SUPER15W40 (3 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>WC0918343</b>   | WC0918067   | WC0821568   |
| Sample Date    |     | Client Info |           | <b>09 Jul 2024</b> | 29 May 2024 | 14 Feb 2024 |
| Machine Age    | hrs | Client Info |           | <b>2340</b>        | 2218        | 1843        |
| Oil Age        | hrs | Client Info |           | <b>2</b>           | 864         | 0           |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | N/A         |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | N/A         |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >100 | <b>7</b>     | 5    | 21   |
| Chromium     | ppm    | ASTM D5185m | >20  | <b>0</b>     | <1   | 1    |
| Nickel       | ppm    | ASTM D5185m | >2   | <b>0</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 | >25  | <b>1</b>     | 2    | 3    |
| Lead         | ppm    | ASTM D5185m | >40  | <b>0</b>     | 0    | <1   |
| Copper       | ppm    | ASTM D5185m | >330 | <b>&lt;1</b> | <1   | 2    |
| Tin          | ppm    | ASTM D5185m | >15  | <b>0</b>     | 0    | <1   |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

## CONTAMINATION

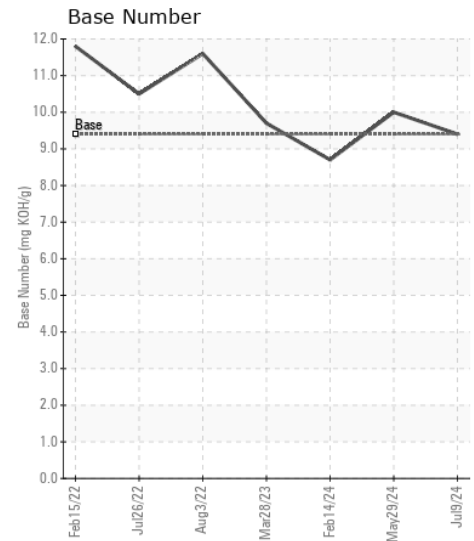
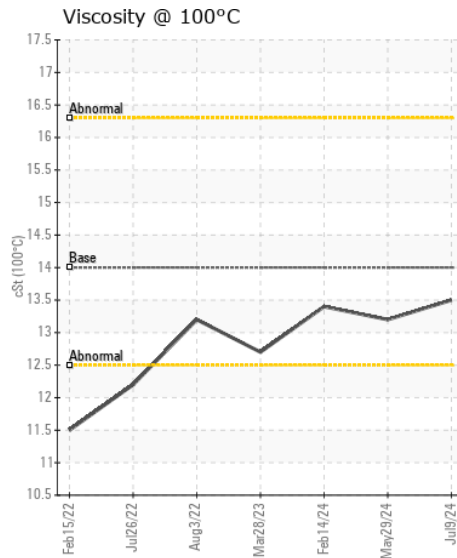
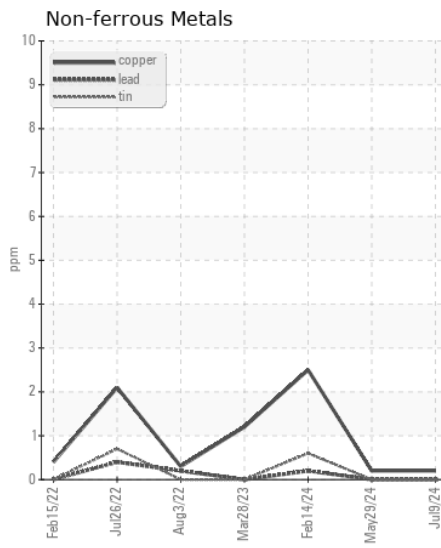
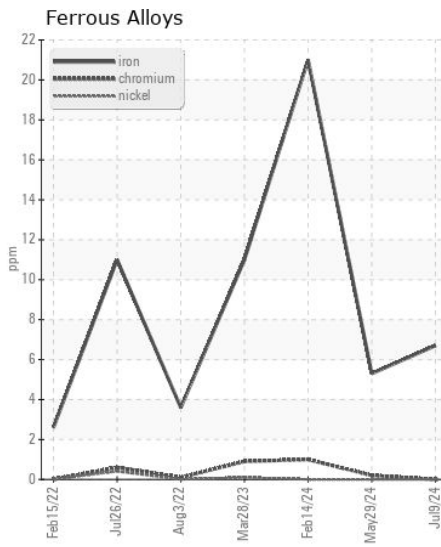
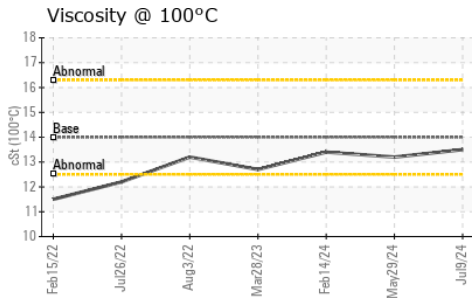
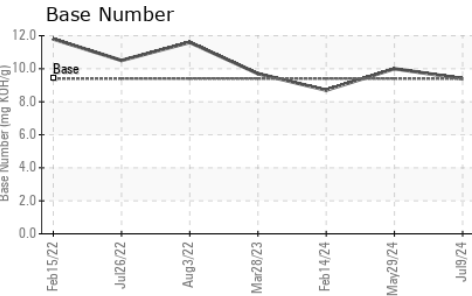
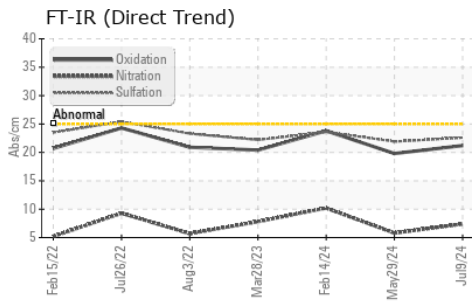
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >25   | <b>5</b>       | 4     | 9     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>0</b>       | 2     | <1    |
| 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   |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.2</b>     | 0.1   | 0.3   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>7.4</b>     | 5.8   | 10.2  |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>22.6</b>    | 21.9  | 23.6  |
| Silt             | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Debris           | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Sand/Dirt        | scalar   | *Visual     | NONE  | <b>NONE</b>    | NONE  | NONE  |
| Appearance       | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | NORML |
| Odor             | scalar   | *Visual     | NORML | <b>NORML</b>   | NORML | NORML |
| Emulsified Water | scalar   | *Visual     | >0.2  | <b>NEG</b>     | NEG   | NEG   |

## 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.

|                  |          |             |     |              |      |      |
|------------------|----------|-------------|-----|--------------|------|------|
| Sodium           | ppm      | ASTM D5185m |     | <b>4</b>     | <1   | 5    |
| Boron            | ppm      | ASTM D5185m | 0   | <b>40</b>    | 62   | 33   |
| Barium           | ppm      | ASTM D5185m | 0   | <b>0</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m | 0   | <b>39</b>    | 37   | 46   |
| Manganese        | ppm      | ASTM D5185m |     | <b>&lt;1</b> | 0    | <1   |
| Magnesium        | ppm      | ASTM D5185m | 0   | <b>509</b>   | 465  | 616  |
| Calcium          | ppm      | ASTM D5185m |     | <b>1888</b>  | 1650 | 1819 |
| Phosphorus       | ppm      | ASTM D5185m |     | <b>782</b>   | 788  | 878  |
| Zinc             | ppm      | ASTM D5185m |     | <b>935</b>   | 917  | 1102 |
| Sulfur           | ppm      | ASTM D5185m |     | <b>2841</b>  | 2928 | 2685 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25 | <b>21.2</b>  | 19.8 | 23.8 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 9.4 | <b>9.4</b>   | 10.0 | 8.7  |
| Visc @ 100°C     | cSt      | ASTM D445   | 14  | <b>13.5</b>  | 13.2 | 13.4 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0918343 **Received** : 15 Jul 2024  
**Lab Number** : 06235729 **Tested** : 16 Jul 2024  
**Unique Number** : 11124563 **Diagnosed** : 16 Jul 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**SHERWOOD CONSTRUCTION CO INC**  
 3219 WEST MAY ST  
 WICHITA, KS  
 US 67213  
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 randy.roberts@sherwood.net

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: x: