



# OIL ANALYSIS REPORT

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



Area  
**TMR-Riviera Beach**  
 Machine Id  
**231160 LIEBHERR LH40M 1202-75762**  
 Component  
**Front Right Wheel Hub**  
 Fluid  
**AMALIE 85W140 (--- GAL)**

## RECOMMENDATION

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>DJJ0023194</b>  | DJJ0021113  | DJJ0007663  |
| Sample Date    |     | Client Info |           | <b>09 Jul 2024</b> | 13 Oct 2023 | 29 Mar 2021 |
| Machine Age    | hrs | Client Info |           | <b>15282</b>       | 14181       | 9701        |
| Oil Age        | hrs | Client Info |           | <b>500</b>         | 0           | 500         |
| Filter Age     | hrs | Client Info |           | <b>500</b>         | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Not Changd  | Not Changd  |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | N/A         | N/A         |
| Sample Status  |     |             |           | <b>ABNORMAL</b>    | ABNORMAL    | NORMAL      |

## WEAR

Gear wear is indicated.

|              |        |             |      |              |       |       |
|--------------|--------|-------------|------|--------------|-------|-------|
| Iron         | ppm    | ASTM D5185m | >650 | <b>▲ 810</b> | ▲ 858 | 424   |
| Chromium     | ppm    | ASTM D5185m | >4   | <b>▲ 6</b>   | ▲ 7   | 1     |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>1</b>     | <1    | <1    |
| Titanium     | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | 0     | 0     |
| Silver       | ppm    | ASTM D5185m |      | <b>0</b>     | 0     | 0     |
| Aluminum     | ppm    | ASTM D5185m | >25  | <b>2</b>     | 2     | 0     |
| Lead         | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | 0     | <1    |
| Copper       | ppm    | ASTM D5185m | >60  | <b>11</b>    | 11    | 6     |
| Tin          | ppm    | ASTM D5185m | >4   | <b>0</b>     | 0     | <1    |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0     | 0     |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE  | LIGHT |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE  | NONE  |

## CONTAMINATION

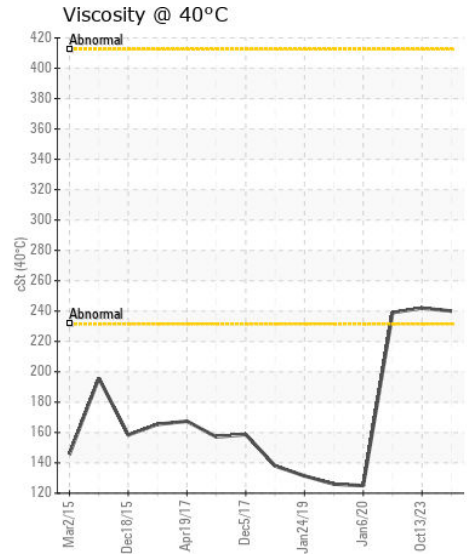
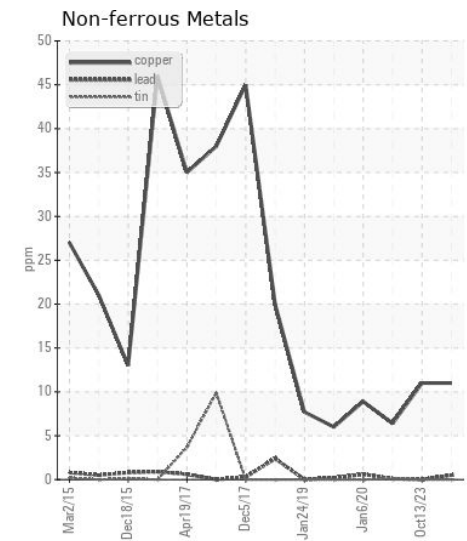
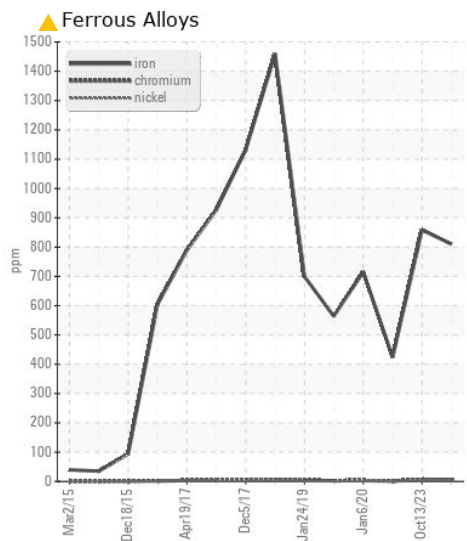
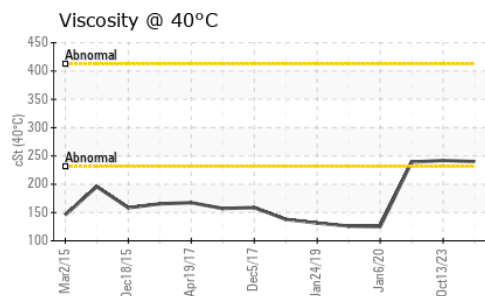
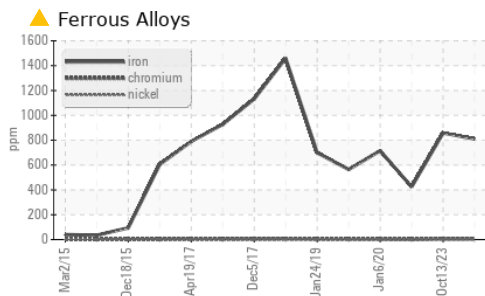
There is no indication of any contamination in the oil.

|                  |        |             |       |              |       |       |
|------------------|--------|-------------|-------|--------------|-------|-------|
| Silicon          | ppm    | ASTM D5185m | >75   | <b>13</b>    | 12    | 2     |
| Potassium        | ppm    | ASTM D5185m | >20   | <b>3</b>     | 2     | 1     |
| Water            |        | WC Method   | >0.2  | <b>NEG</b>   | NEG   | NEG   |
| Silt             | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Debris           | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | VLITE |
| 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 condition of the oil is acceptable for the time in service.

|             |     |             |  |              |       |       |
|-------------|-----|-------------|--|--------------|-------|-------|
| Sodium      | ppm | ASTM D5185m |  | <b>5</b>     | 6     | 4     |
| Boron       | ppm | ASTM D5185m |  | <b>33</b>    | 34    | 12    |
| Barium      | ppm | ASTM D5185m |  | <b>0</b>     | 0     | 0     |
| Molybdenum  | ppm | ASTM D5185m |  | <b>1</b>     | <1    | <1    |
| Manganese   | ppm | ASTM D5185m |  | <b>6</b>     | 6     | 3     |
| Magnesium   | ppm | ASTM D5185m |  | <b>3</b>     | 1     | 2     |
| Calcium     | ppm | ASTM D5185m |  | <b>2</b>     | 15    | 8     |
| Phosphorus  | ppm | ASTM D5185m |  | <b>360</b>   | 401   | 424   |
| Zinc        | ppm | ASTM D5185m |  | <b>17</b>    | 8     | 6     |
| Sulfur      | ppm | ASTM D5185m |  | <b>16106</b> | 18750 | 14934 |
| Visc @ 40°C | cSt | ASTM D445   |  | <b>240</b>   | 242   | 239   |



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : DJJ0023194  
**Lab Number** : 06236514  
**Unique Number** : 11125348  
**Test Package** : CONST  
**Received** : 15 Jul 2024  
**Tested** : 16 Jul 2024  
**Diagnosed** : 17 Jul 2024 - Sean Felton

**TRADEMARK METALS RECYCLING - RIVIERA BEACH**  
 4661 DYER BLVD  
 WEST PALM BEACH, FL  
 US 33407  
 Contact: RYAN BOWDEN

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)