



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



Area  
**[W65260-1]**  
Machine Id  
**JOHN DEERE 310E 1DW310EXVMF710644**  
Component  
**Front Differential**  
Fluid  
**JOHN DEERE HY-GARD HYD/TRANS (--- GAL)**

### RECOMMENDATION

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>JR0206353</b>   | JR0203646   | JR0170697   |
| Sample Date    |     | Client Info |           | <b>14 Mar 2024</b> | 29 Jan 2024 | 15 Jul 2023 |
| Machine Age    | hrs | Client Info |           | <b>3302</b>        | 2640        | 2640        |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 2060        | 2060        |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Not Changed</b> | N/A         | Not Changed |
| Filter Changed |     | Client Info |           | <b>Not Changed</b> | Changed     | Not Changed |
| Sample Status  |     |             |           | <b>ABNORMAL</b>    | ABNORMAL    | ABNORMAL    |

### WEAR

Bearing and/or bushing wear is indicated.

| Test         | UOM    | Method      | Limit/Abn | Current      | History1 | History2 |
|--------------|--------|-------------|-----------|--------------|----------|----------|
| PQ           |        | ASTM D8184  |           | <b>65</b>    | 44       | 205      |
| Iron         | ppm    | ASTM D5185m | >500      | <b>125</b>   | 154      | 235      |
| Chromium     | ppm    | ASTM D5185m | >10       | <b>1</b>     | <1       | 2        |
| Nickel       | ppm    | ASTM D5185m | >10       | <b>2</b>     | 2        | 3        |
| Titanium     | ppm    | ASTM D5185m |           | <b>&lt;1</b> | <1       | 0        |
| Silver       | ppm    | ASTM D5185m |           | <b>0</b>     | 0        | 0        |
| Aluminum     | ppm    | ASTM D5185m | >25       | <b>3</b>     | 4        | 3        |
| Lead         | ppm    | ASTM D5185m | >25       | <b>8</b>     | <1       | 1        |
| Copper       | ppm    | ASTM D5185m | >100      | <b>▲ 319</b> | ▲ 249    | ▲ 164    |
| Tin          | ppm    | ASTM D5185m | >10       | <b>▲ 11</b>  | 8        | ● 8      |
| 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

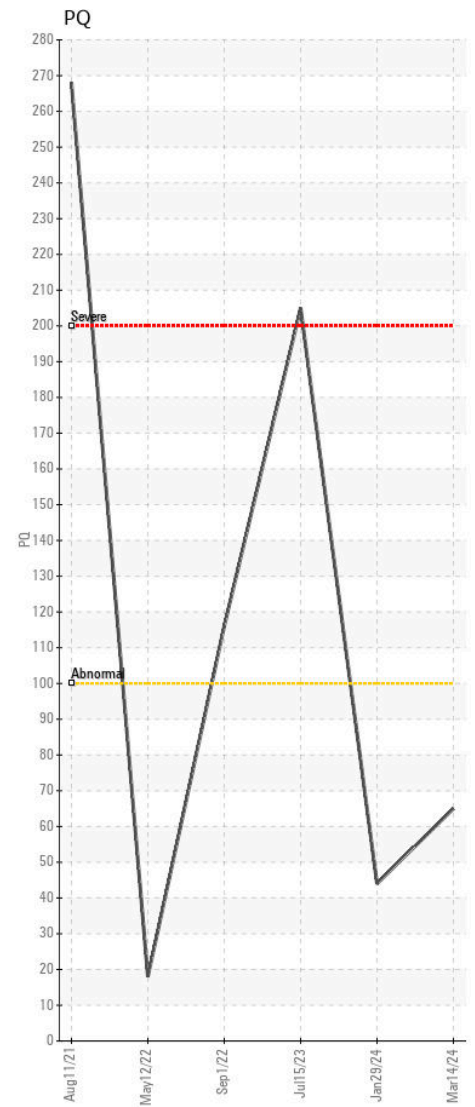
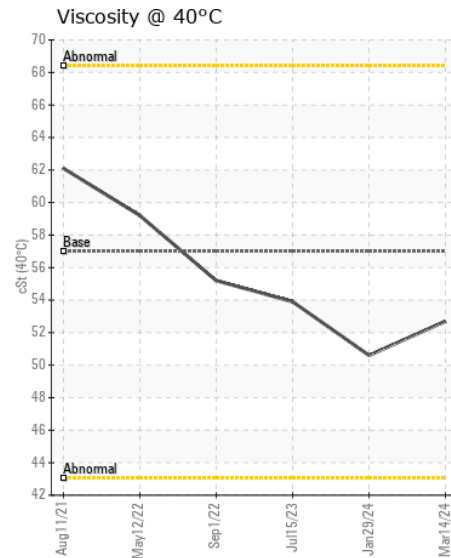
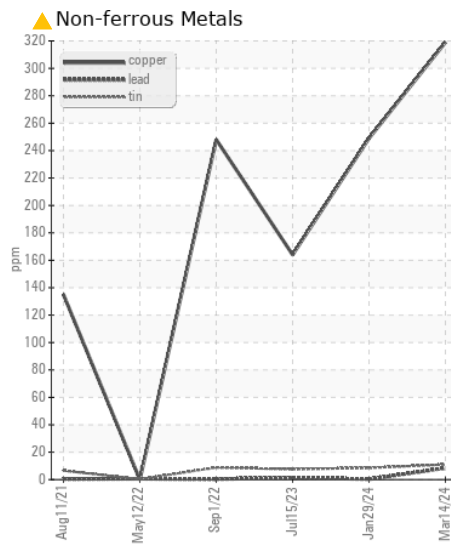
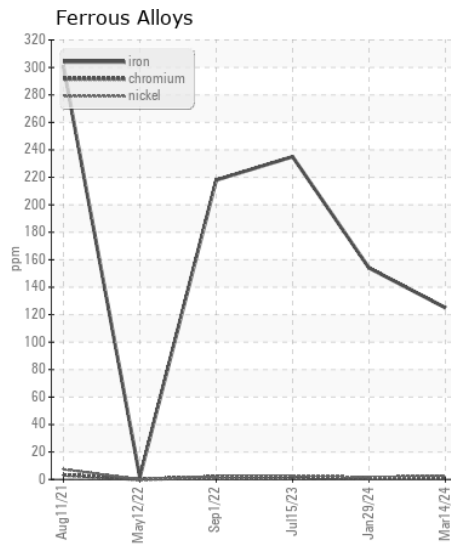
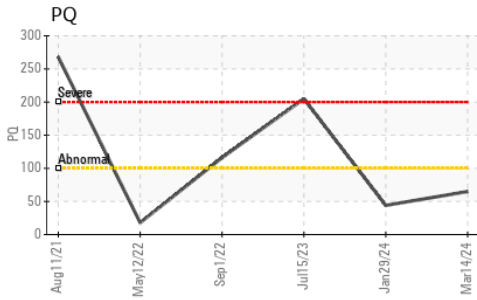
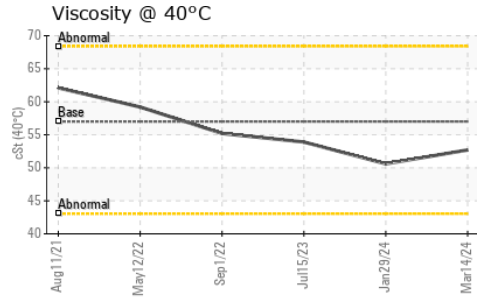
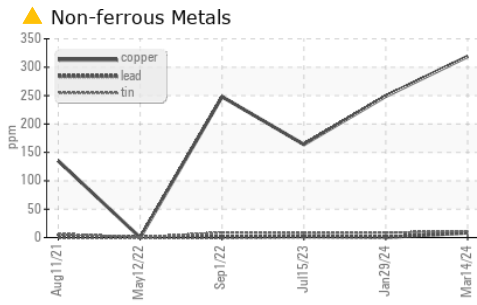
There is no indication of any contamination in the oil.

| Test             | UOM    | Method      | Limit/Abn | Current      | History1 | History2 |
|------------------|--------|-------------|-----------|--------------|----------|----------|
| Silicon          | ppm    | ASTM D5185m | >75       | <b>11</b>    | 17       | 14       |
| Potassium        | ppm    | ASTM D5185m | >20       | <b>2</b>     | 0        | 2        |
| Water            |        | WC Method   | >.2       | <b>NEG</b>   | NEG      | NEG      |
| 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     | >.2       | <b>NEG</b>   | NEG      | NEG      |

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

| Test        | UOM | Method      | Limit/Abn | Current      | History1 | History2 |
|-------------|-----|-------------|-----------|--------------|----------|----------|
| Sodium      | ppm | ASTM D5185m |           | <b>1</b>     | 4        | 6        |
| Boron       | ppm | ASTM D5185m | 6         | <b>8</b>     | 8        | 12       |
| Barium      | ppm | ASTM D5185m | 0         | <b>0</b>     | <1       | 0        |
| Molybdenum  | ppm | ASTM D5185m | 0         | <b>&lt;1</b> | 0        | <1       |
| Manganese   | ppm | ASTM D5185m |           | <b>5</b>     | 14       | 28       |
| Magnesium   | ppm | ASTM D5185m | 145       | <b>66</b>    | 90       | 93       |
| Calcium     | ppm | ASTM D5185m | 3570      | <b>1941</b>  | 3275     | 3766     |
| Phosphorus  | ppm | ASTM D5185m | 1290      | <b>766</b>   | 999      | 1122     |
| Zinc        | ppm | ASTM D5185m | 1640      | <b>766</b>   | 1201     | 1337     |
| Sulfur      | ppm | ASTM D5185m |           | <b>2220</b>  | 3361     | 4518     |
| Visc @ 40°C | cSt | ASTM D445   | 57.0      | <b>52.7</b>  | 50.6     | 53.9     |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0206353 **Received** : 19 Mar 2024  
**Lab Number** : 06122703 **Tested** : 20 Mar 2024  
**Unique Number** : 10936854 **Diagnosed** : 21 Mar 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

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)

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