



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

Machine Id  
**JOHN DEERE 310 P 1DW310PATPFB06780**

Component  
**Rear Differential**  
Fluid  
**{not provided} (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number  |     | Client Info |           | <b>JR0222580</b>   | JR0191138   | ---      |
| Sample Date    |     | Client Info |           | <b>26 Jun 2024</b> | 17 Nov 2023 | ---      |
| Machine Age    | hrs | Client Info |           | <b>1116</b>        | 647         | ---      |
| Oil Age        | hrs | Client Info |           | <b>469</b>         | 0           | ---      |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | ---      |
| Oil Changed    |     | Client Info |           | <b>Not Chngd</b>   | Changed     | ---      |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | N/A         | ---      |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | ---      |

### WEAR

All component wear rates are normal.

| Test         | UOM    | Method      | Limit/Abn | Current      | History1 | History2 |
|--------------|--------|-------------|-----------|--------------|----------|----------|
| PQ           |        | ASTM D8184  |           | <b>396</b>   | 135      | ---      |
| Iron         | ppm    | ASTM D5185m | >500      | <b>460</b>   | 0        | ---      |
| Chromium     | ppm    | ASTM D5185m | >10       | <b>2</b>     | 0        | ---      |
| Nickel       | ppm    | ASTM D5185m | >10       | <b>7</b>     | 0        | ---      |
| Titanium     | ppm    | ASTM D5185m |           | <b>&lt;1</b> | 0        | ---      |
| Silver       | ppm    | ASTM D5185m |           | <b>&lt;1</b> | 0        | ---      |
| Aluminum     | ppm    | ASTM D5185m | >25       | <b>4</b>     | <1       | ---      |
| Lead         | ppm    | ASTM D5185m | >25       | <b>0</b>     | 0        | ---      |
| Copper       | ppm    | ASTM D5185m | >100      | <b>148</b>   | 0        | ---      |
| Tin          | ppm    | ASTM D5185m | >10       | <b>6</b>     | 0        | ---      |
| Vanadium     | ppm    | ASTM D5185m |           | <b>0</b>     | 0        | ---      |
| White Metal  | scalar | *Visual     | NONE      | <b>NONE</b>  | NONE     | ---      |
| Yellow Metal | scalar | *Visual     | NONE      | <b>NONE</b>  | NONE     | ---      |

### CONTAMINATION

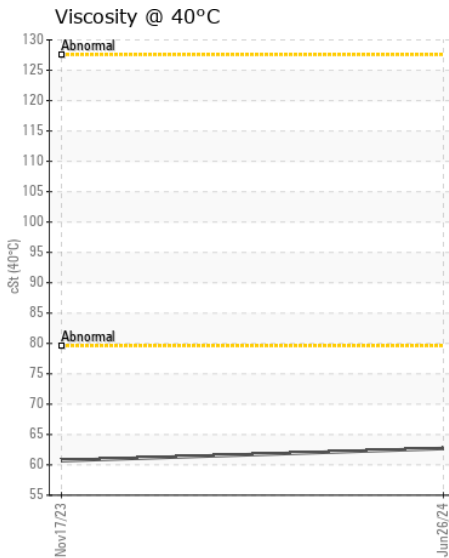
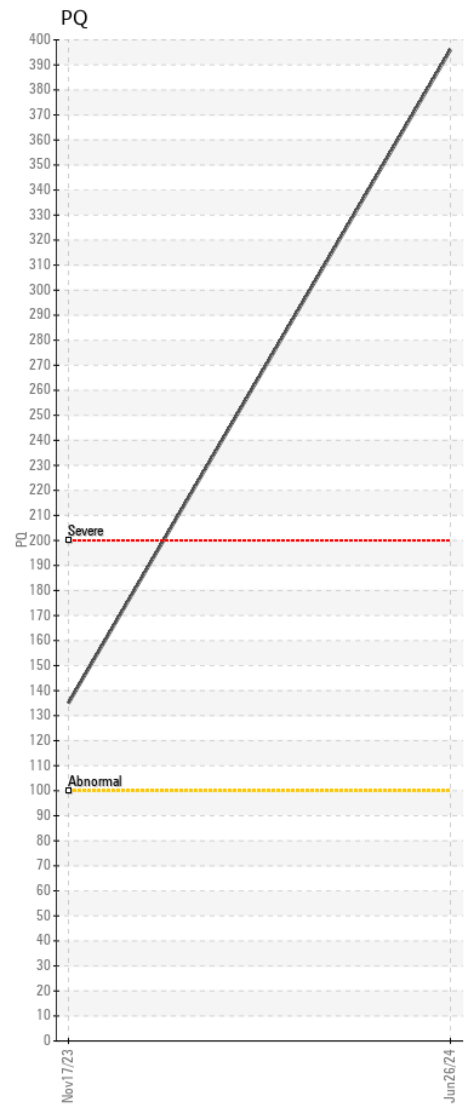
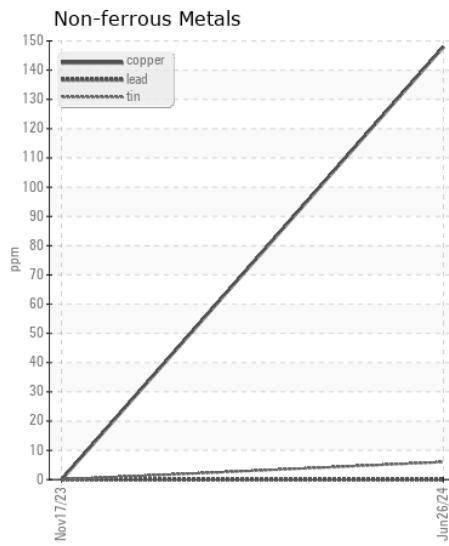
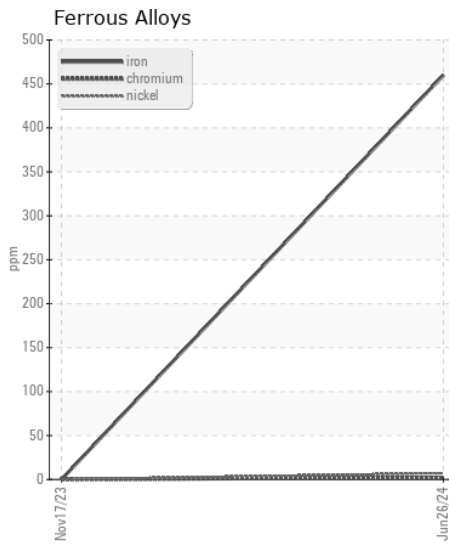
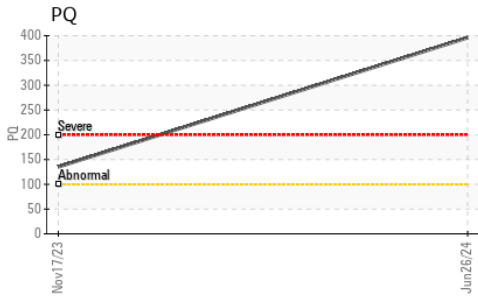
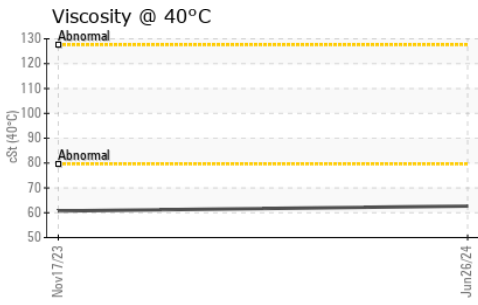
There is no indication of any contamination in the oil.

| Test             | UOM    | Method      | Limit/Abn | Current      | History1 | History2 |
|------------------|--------|-------------|-----------|--------------|----------|----------|
| Silicon          | ppm    | ASTM D5185m | >75       | <b>17</b>    | 4        | ---      |
| Potassium        | ppm    | ASTM D5185m | >20       | <b>4</b>     | 0        | ---      |
| Water            |        | WC Method   | >.2       | <b>NEG</b>   | NEG      | ---      |
| Silt             | scalar | *Visual     | NONE      | <b>NONE</b>  | NONE     | ---      |
| Debris           | scalar | *Visual     | NONE      | <b>NONE</b>  | NONE     | ---      |
| Sand/Dirt        | scalar | *Visual     | NONE      | <b>NONE</b>  | NONE     | ---      |
| Appearance       | scalar | *Visual     | NORML     | <b>NORML</b> | NORML    | ---      |
| Odor             | scalar | *Visual     | NORML     | <b>NORML</b> | NORML    | ---      |
| Emulsified Water | scalar | *Visual     | >.2       | <b>NEG</b>   | 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>20</b>   | 0        | ---      |
| Boron       | ppm | ASTM D5185m |           | <b>101</b>  | 0        | ---      |
| Barium      | ppm | ASTM D5185m |           | <b>0</b>    | 0        | ---      |
| Molybdenum  | ppm | ASTM D5185m |           | <b>0</b>    | 0        | ---      |
| Manganese   | ppm | ASTM D5185m |           | <b>32</b>   | <1       | ---      |
| Magnesium   | ppm | ASTM D5185m |           | <b>12</b>   | 98       | ---      |
| Calcium     | ppm | ASTM D5185m |           | <b>3445</b> | 3314     | ---      |
| Phosphorus  | ppm | ASTM D5185m |           | <b>1258</b> | 1005     | ---      |
| Zinc        | ppm | ASTM D5185m |           | <b>1471</b> | 1216     | ---      |
| Sulfur      | ppm | ASTM D5185m |           | <b>4184</b> | 3512     | ---      |
| Visc @ 40°C | cSt | ASTM D445   |           | <b>62.7</b> | 60.7     | ---      |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0222580 **Received** : 28 Jun 2024  
**Lab Number** : 06223711 **Tested** : 01 Jul 2024  
**Unique Number** : 11101908 **Diagnosed** : 01 Jul 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**JRE - GARNER**  
 4161 AUBURN CHURCH RD  
 GARNER, NC  
 US 27529

Contact: RALEIGH SHOP  
 sean.betts@jamesriverequipment.com; catherine.anastasio@wearcheck.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)

T: (919)614-2260  
 F: (919)779-5432