



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

Machine Id  
**JOHN DEERE 333G 1T0333GMLPF443874**

Component  
**Diesel Engine**

Fluid  
**{not provided} (--- GAL)**

### RECOMMENDATION

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

| Test           | UOM | Method      | Limit/Abn | Current            | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|----------|----------|
| Sample Number  |     | Client Info |           | <b>JR0206248</b>   | ---      | ---      |
| Sample Date    |     | Client Info |           | <b>10 Apr 2024</b> | ---      | ---      |
| Machine Age    | hrs | Client Info |           | <b>451</b>         | ---      | ---      |
| Oil Age        | hrs | Client Info |           | <b>451</b>         | ---      | ---      |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | ---      | ---      |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | ---      | ---      |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | ---      | ---      |
| Sample Status  |     |             |           | <b>ABNORMAL</b>    | ---      | ---      |

### WEAR

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other metal levels are typical for a new component breaking in.

|              |        |             |      |              |     |     |
|--------------|--------|-------------|------|--------------|-----|-----|
| Iron         | ppm    | ASTM D5185m | >51  | <b>48</b>    | --- | --- |
| Chromium     | ppm    | ASTM D5185m | >11  | <b>1</b>     | --- | --- |
| Nickel       | ppm    | ASTM D5185m | >5   | <b>0</b>     | --- | --- |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | --- | --- |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | --- | --- |
| Aluminum     | ppm    | ASTM D5185m | >31  | <b>9</b>     | --- | --- |
| Lead         | ppm    | ASTM D5185m | >26  | <b>&lt;1</b> | --- | --- |
| Copper       | ppm    | ASTM D5185m | >26  | <b>▲ 141</b> | --- | --- |
| Tin          | ppm    | ASTM D5185m | >4   | <b>1</b>     | --- | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | --- | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | --- | --- |

### CONTAMINATION

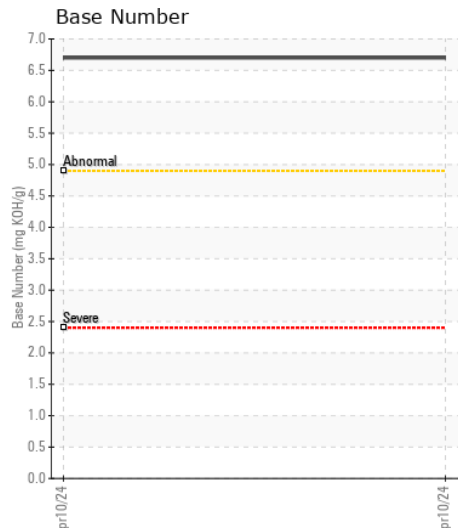
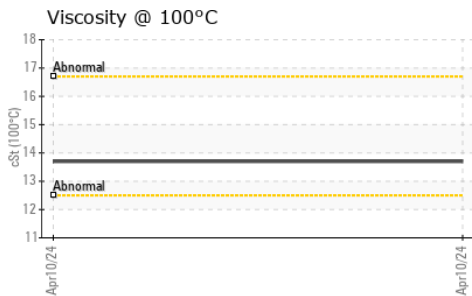
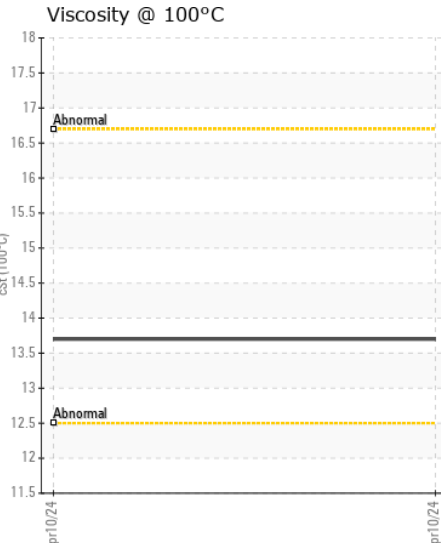
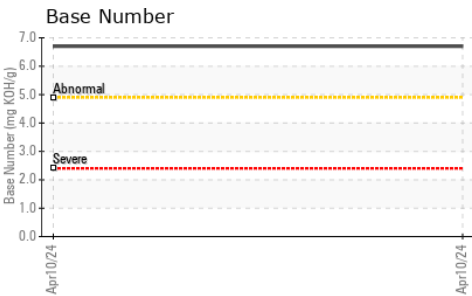
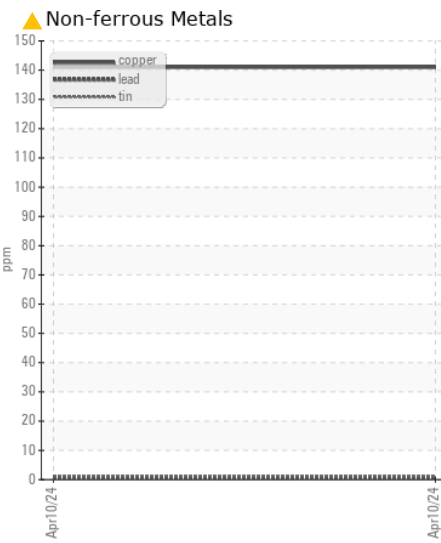
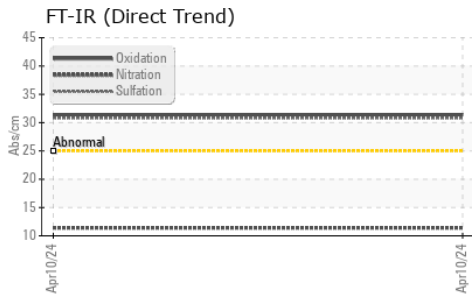
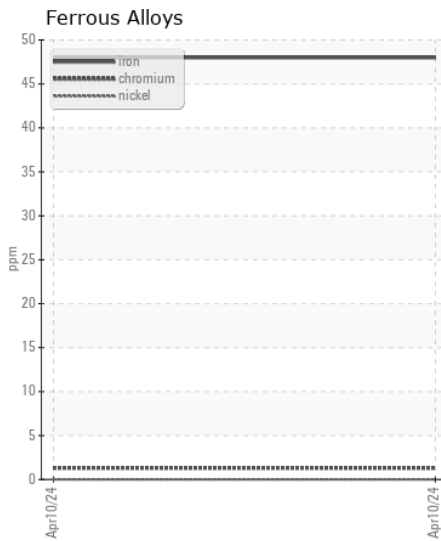
There is no indication of any contamination in the oil.

|                  |          |             |       |                |     |     |
|------------------|----------|-------------|-------|----------------|-----|-----|
| Silicon          | ppm      | ASTM D5185m | >22   | <b>46</b>      | --- | --- |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>&lt;1</b>   | --- | --- |
| Fuel             |          | WC Method   | >2.1  | <b>&lt;1.0</b> | --- | --- |
| Water            |          | WC Method   | >0.21 | <b>NEG</b>     | --- | --- |
| Glycol           |          | WC Method   |       | <b>NEG</b>     | --- | --- |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.5</b>     | --- | --- |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>11.4</b>    | --- | --- |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>30.8</b>    | --- | --- |
| Silt             | scalar   | *Visual     | NONE  | <b>NONE</b>    | --- | --- |
| Debris           | scalar   | *Visual     | NONE  | <b>NONE</b>    | --- | --- |
| Sand/Dirt        | scalar   | *Visual     | NONE  | <b>NONE</b>    | --- | --- |
| Appearance       | scalar   | *Visual     | NORML | <b>NORML</b>   | --- | --- |
| Odor             | scalar   | *Visual     | NORML | <b>NORML</b>   | --- | --- |
| Emulsified Water | scalar   | *Visual     | >0.21 | <b>NEG</b>     | --- | --- |

### FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

|                  |          |             |     |             |     |     |
|------------------|----------|-------------|-----|-------------|-----|-----|
| Sodium           | ppm      | ASTM D5185m | >31 | <b>7</b>    | --- | --- |
| Boron            | ppm      | ASTM D5185m |     | <b>125</b>  | --- | --- |
| Barium           | ppm      | ASTM D5185m |     | <b>3</b>    | --- | --- |
| Molybdenum       | ppm      | ASTM D5185m |     | <b>301</b>  | --- | --- |
| Manganese        | ppm      | ASTM D5185m |     | <b>3</b>    | --- | --- |
| Magnesium        | ppm      | ASTM D5185m |     | <b>886</b>  | --- | --- |
| Calcium          | ppm      | ASTM D5185m |     | <b>1902</b> | --- | --- |
| Phosphorus       | ppm      | ASTM D5185m |     | <b>989</b>  | --- | --- |
| Zinc             | ppm      | ASTM D5185m |     | <b>1241</b> | --- | --- |
| Sulfur           | ppm      | ASTM D5185m |     | <b>3263</b> | --- | --- |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25 | <b>31.4</b> | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896  |     | <b>6.7</b>  | --- | --- |
| Visc @ 100°C     | cSt      | ASTM D445   |     | <b>13.7</b> | --- | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0206248 **Received** : 12 Apr 2024  
**Lab Number** : 06147175 **Tested** : 15 Apr 2024  
**Unique Number** : 10977253 **Diagnosed** : 16 Apr 2024 - Sean Felton  
**Test Package** : CONST ( Additional Tests: TBN )

**JRE - CHARLOTTE**  
 9550 STATESVILLE ROAD  
 CHARLOTTE, NC  
 US 28269  
 Contact: CHARLOTTE SHOP  
 myoung@jamesriverequipment.com  
 T: (704)597-0211  
 F: (704)596-6198

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)