



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

Area

**[38542]**

Machine Id

**JOHN DEERE 245G 1FF245GXLHF800470**

Component

**Diesel Engine**

Fluid

**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>JR0160198</b>   | JR0132143   | JR0111470   |
| Sample Date    |     | Client Info |           | <b>16 Feb 2023</b> | 26 May 2022 | 02 Nov 2021 |
| Machine Age    | hrs | Client Info |           | <b>4440</b>        | 3958        | 3468        |
| Oil Age        | hrs | Client Info |           | <b>482</b>         | 3958        | 0           |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 3958        | 0           |
| Oil Changed    |     | Client Info |           | <b>N/A</b>         | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | Changed     | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

### WEAR

All component wear rates are normal.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185m | >51  | <b>10</b>    | 6    | 5    |
| Chromium     | ppm    | ASTM D5185m | >11  | <b>&lt;1</b> | 0    | <1   |
| Nickel       | ppm    | ASTM D5185m | >5   | <b>0</b>     | 0    | <1   |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>     | <1   | <1   |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | <1   | 0    |
| Aluminum     | ppm    | ASTM D5185m | >31  | <b>7</b>     | 6    | 8    |
| Lead         | ppm    | ASTM D5185m | >26  | <b>&lt;1</b> | <1   | <1   |
| Copper       | ppm    | ASTM D5185m | >26  | <b>&lt;1</b> | <1   | <1   |
| Tin          | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | 0    | 0    |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>     | <1   | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

### CONTAMINATION

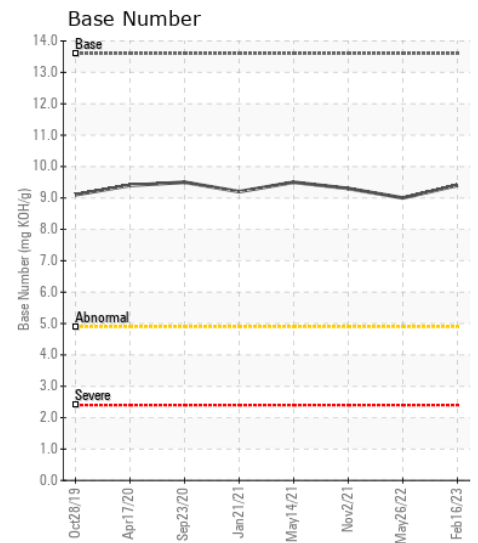
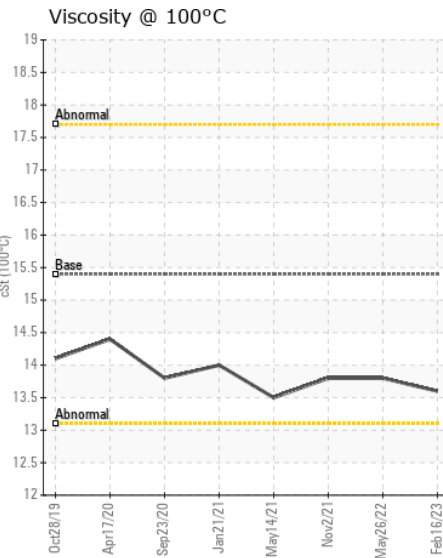
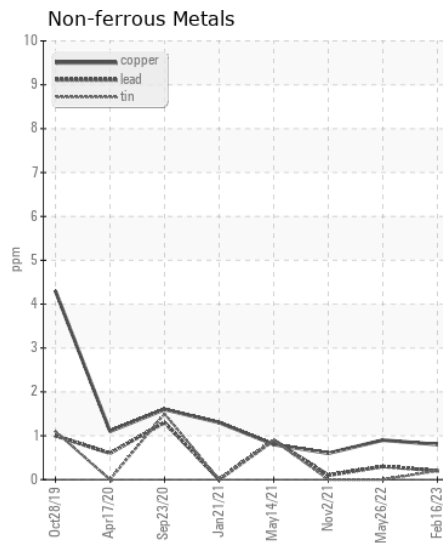
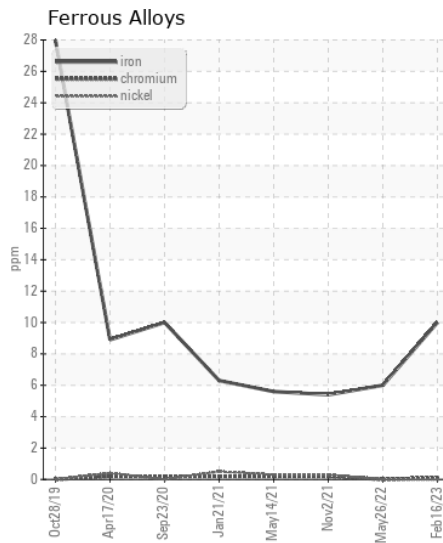
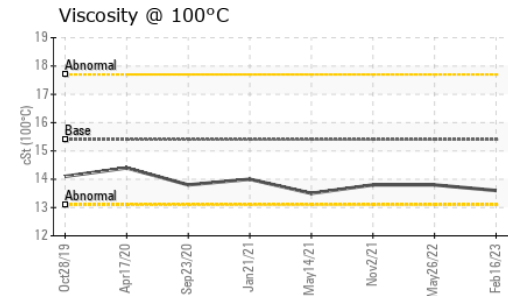
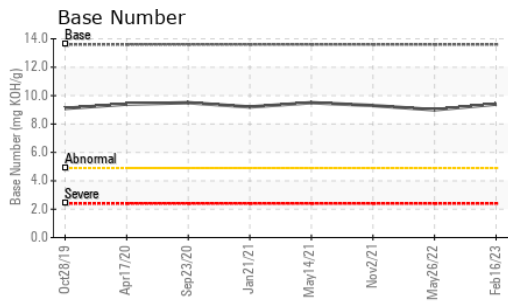
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >22   | <b>7</b>       | 6     | 7     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>6</b>       | 4     | 1     |
| Fuel             |          | WC Method   | >5    | <b>&lt;1.0</b> | <1.0  | <1.0  |
| Water            |          | WC Method   | >0.21 | <b>NEG</b>     | NEG   | NEG   |
| Glycol           |          | WC Method   |       | <b>NEG</b>     | NEG   | NEG   |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.2</b>     | 0.2   | 0.2   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>8.3</b>     | 7.6   | 7.7   |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>20.9</b>    | 20.8  | 20.8  |
| 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     | >0.21 | <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 | >31  | <b>13</b>    | 12   | 3    |
| Boron            | ppm      | ASTM D5185m |      | <b>255</b>   | 268  | 211  |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>247</b>   | 219  | 243  |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | <1   | <1   |
| Magnesium        | ppm      | ASTM D5185m |      | <b>778</b>   | 745  | 845  |
| Calcium          | ppm      | ASTM D5185m |      | <b>1406</b>  | 1421 | 1544 |
| Phosphorus       | ppm      | ASTM D5185m |      | <b>884</b>   | 825  | 851  |
| Zinc             | ppm      | ASTM D5185m |      | <b>1052</b>  | 1004 | 1017 |
| Sulfur           | ppm      | ASTM D5185m |      | <b>2882</b>  | 2881 | 4118 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>15.5</b>  | 15.3 | 15.2 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 13.6 | <b>9.4</b>   | 9.0  | 9.3  |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.4 | <b>13.6</b>  | 13.8 | 13.8 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0160198 **Received** : 20 Feb 2023  
**Lab Number** : 05771669 **Diagnosed** : 21 Feb 2023  
**Unique Number** : 10346286 **Diagnostician** : Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

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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