



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

Area

**[16W15784]**

Machine Id

**JOHN DEERE 844L 1DW844LXANL714138**

Component

**Diesel Engine**

Fluid

**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (42 QTS)**

### RECOMMENDATION

Resample at the next service interval to monitor. ( Customer Sample Comment: 16W15784 )

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>JR0206948</b>   | JR0185704   | JR0173624   |
| Sample Date    |     | Client Info |           | <b>16 Mar 2024</b> | 11 Nov 2023 | 24 Jun 2023 |
| Machine Age    | hrs | Client Info |           | <b>2502</b>        | 2041        | 1597        |
| Oil Age        | hrs | Client Info |           | <b>461</b>         | 444         | 531         |
| Filter Age     | hrs | Client Info |           | <b>461</b>         | 444         | 531         |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | ABNORMAL    | ABNORMAL    |

### WEAR

All component wear rates are normal.

|              |        |             |      |             |      |      |
|--------------|--------|-------------|------|-------------|------|------|
| Iron         | ppm    | ASTM D5185m | >51  | <b>14</b>   | 16   | 28   |
| Chromium     | ppm    | ASTM D5185m | >11  | <b>0</b>    | <1   | <1   |
| Nickel       | ppm    | ASTM D5185m | >5   | <b>0</b>    | 0    | <1   |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>    | 0    | 0    |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>    | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >31  | <b>2</b>    | 4    | 4    |
| Lead         | ppm    | ASTM D5185m | >26  | <b>10</b>   | 17   | ▲ 46 |
| Copper       | ppm    | ASTM D5185m | >26  | <b>25</b>   | ▲ 31 | ▲ 40 |
| Tin          | ppm    | ASTM D5185m | >4   | <b>3</b>    | ▲ 6  | ▲ 8  |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>    | 0    | <1   |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b> | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b> | NONE | NONE |

### CONTAMINATION

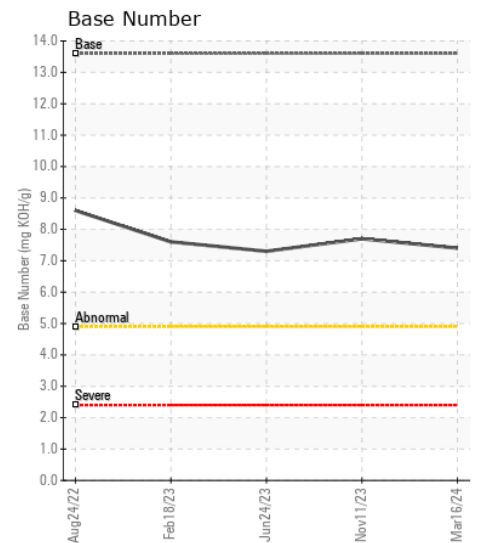
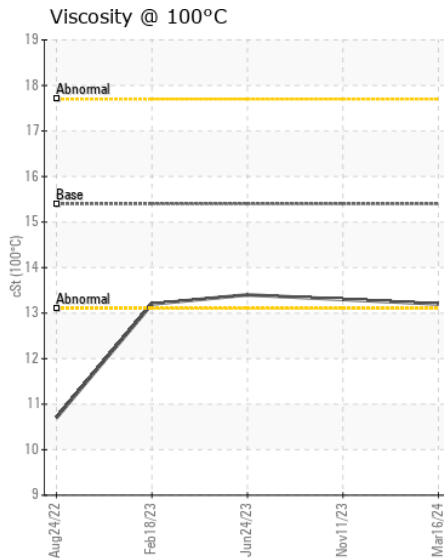
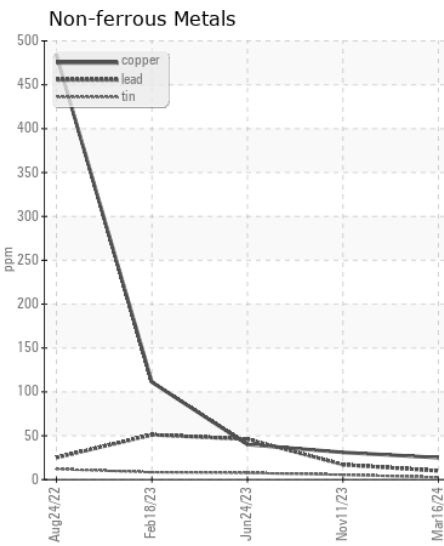
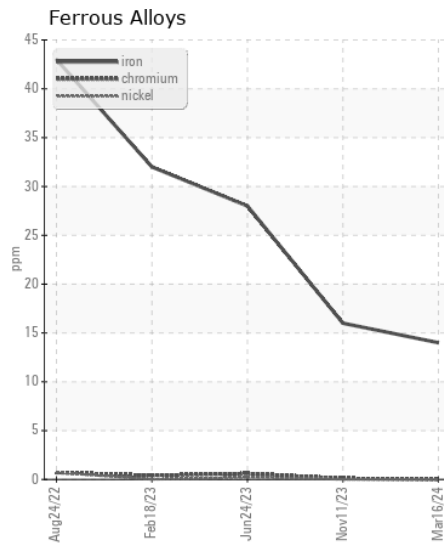
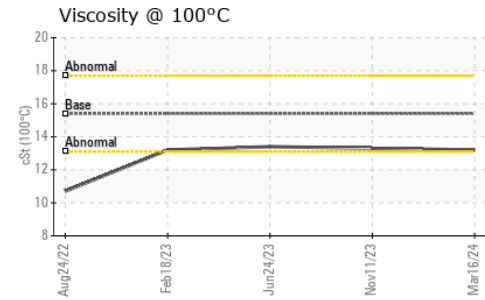
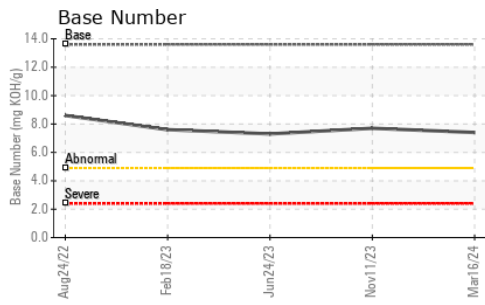
There is no indication of any contamination in the oil.

|                  |          |             |       |                |       |       |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon          | ppm      | ASTM D5185m | >22   | <b>5</b>       | 7     | 6     |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>0</b>       | 1     | 1     |
| Fuel             |          | WC Method   | >2.1  | <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>0.4</b>     | 0.5   | 0.6   |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>10.7</b>    | 10.6  | 12.5  |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>25.4</b>    | 25.5  | 28.4  |
| 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>3</b>    | 4    | 5    |
| Boron            | ppm      | ASTM D5185m |      | <b>87</b>   | 99   | 41   |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>    | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>253</b>  | 258  | 258  |
| Manganese        | ppm      | ASTM D5185m |      | <b>0</b>    | <1   | 2    |
| Magnesium        | ppm      | ASTM D5185m |      | <b>867</b>  | 873  | 882  |
| Calcium          | ppm      | ASTM D5185m |      | <b>1444</b> | 1409 | 1546 |
| Phosphorus       | ppm      | ASTM D5185m |      | <b>817</b>  | 833  | 841  |
| Zinc             | ppm      | ASTM D5185m |      | <b>949</b>  | 1032 | 1098 |
| Sulfur           | ppm      | ASTM D5185m |      | <b>3428</b> | 3021 | 3703 |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>20.6</b> | 20.4 | 24.2 |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 13.6 | <b>7.4</b>  | 7.7  | 7.3  |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.4 | <b>13.2</b> | 13.3 | 13.4 |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0206948 **Received** : 19 Mar 2024  
**Lab Number** : 06122095 **Tested** : 19 Mar 2024  
**Unique Number** : 10936246 **Diagnosed** : 21 Mar 2024 - Don Baldrige  
**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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