



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

Machine Id  
**JOHN DEERE 700L 1T0700LXCPF444611**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number  |     | Client Info |           | <b>JR0223158</b>   | JR0180566   | ---      |
| Sample Date    |     | Client Info |           | <b>30 Jun 2024</b> | 16 Oct 2023 | ---      |
| Machine Age    | hrs | Client Info |           | <b>1069</b>        | 523         | ---      |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 523         | ---      |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 523         | ---      |
| Oil Changed    |     | Client Info |           | <b>N/A</b>         | Changed     | ---      |
| Filter Changed |     | Client Info |           | <b>N/A</b>         | Changed     | ---      |
| Sample Status  |     |             |           | <b>NORMAL</b>      | ABNORMAL    | ---      |

### WEAR

All component wear rates are normal.

|              |        |             |      |              |       |     |
|--------------|--------|-------------|------|--------------|-------|-----|
| Iron         | ppm    | ASTM D5185m | >51  | <b>17</b>    | 24    | --- |
| Chromium     | ppm    | ASTM D5185m | >11  | <b>&lt;1</b> | <1    | --- |
| Nickel       | ppm    | ASTM D5185m | >5   | <b>1</b>     | 2     | --- |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0     | --- |
| Silver       | ppm    | ASTM D5185m | >3   | <b>0</b>     | 0     | --- |
| Aluminum     | ppm    | ASTM D5185m | >31  | <b>3</b>     | 4     | --- |
| Lead         | ppm    | ASTM D5185m | >26  | <b>&lt;1</b> | 5     | --- |
| Copper       | ppm    | ASTM D5185m | >26  | <b>36</b>    | ▲ 439 | --- |
| Tin          | ppm    | ASTM D5185m | >4   | <b>&lt;1</b> | 2     | --- |
| 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.

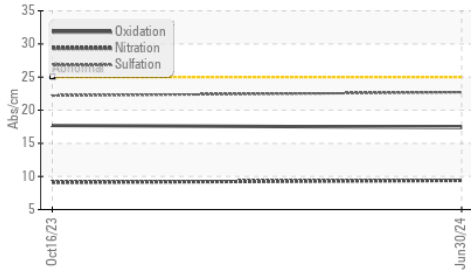
|                  |          |             |       |                |       |     |
|------------------|----------|-------------|-------|----------------|-------|-----|
| Silicon          | ppm      | ASTM D5185m | >22   | <b>6</b>       | 9     | --- |
| Potassium        | ppm      | ASTM D5185m | >20   | <b>0</b>       | <1    | --- |
| Fuel             |          | WC Method   | >2.1  | <b>&lt;1.0</b> | 0.2   | --- |
| Water            |          | WC Method   | >0.21 | <b>NEG</b>     | NEG   | --- |
| Glycol           |          | WC Method   |       | <b>NEG</b>     | NEG   | --- |
| Soot %           | %        | *ASTM D7844 | >3    | <b>0.3</b>     | 0.3   | --- |
| Nitration        | Abs/cm   | *ASTM D7624 | >20   | <b>9.4</b>     | 9.1   | --- |
| Sulfation        | Abs/.1mm | *ASTM D7415 | >30   | <b>22.7</b>    | 22.2  | --- |
| 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     | >0.21 | <b>NEG</b>     | NEG   | --- |

### FLUID CONDITION

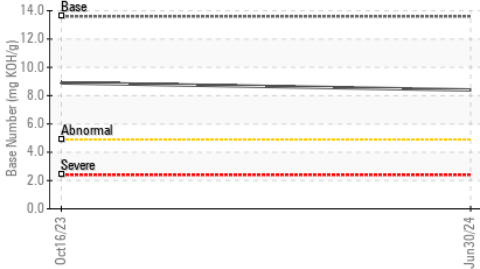
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

|                  |          |             |      |              |        |     |
|------------------|----------|-------------|------|--------------|--------|-----|
| Sodium           | ppm      | ASTM D5185m | >31  | <b>3</b>     | 6      | --- |
| Boron            | ppm      | ASTM D5185m |      | <b>151</b>   | 202    | --- |
| Barium           | ppm      | ASTM D5185m |      | <b>&lt;1</b> | 0      | --- |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>229</b>   | 262    | --- |
| Manganese        | ppm      | ASTM D5185m |      | <b>1</b>     | 4      | --- |
| Magnesium        | ppm      | ASTM D5185m |      | <b>928</b>   | 806    | --- |
| Calcium          | ppm      | ASTM D5185m |      | <b>1573</b>  | 1496   | --- |
| Phosphorus       | ppm      | ASTM D5185m |      | <b>1006</b>  | 904    | --- |
| Zinc             | ppm      | ASTM D5185m |      | <b>1234</b>  | 1099   | --- |
| Sulfur           | ppm      | ASTM D5185m |      | <b>3737</b>  | 2907   | --- |
| Oxidation        | Abs/.1mm | *ASTM D7414 | >25  | <b>17.4</b>  | 17.7   | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896  | 13.6 | <b>8.4</b>   | 8.9    | --- |
| Visc @ 100°C     | cSt      | ASTM D445   | 15.4 | <b>13.4</b>  | ● 10.4 | --- |

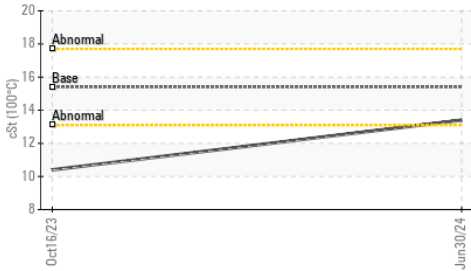
**FT-IR (Direct Trend)**



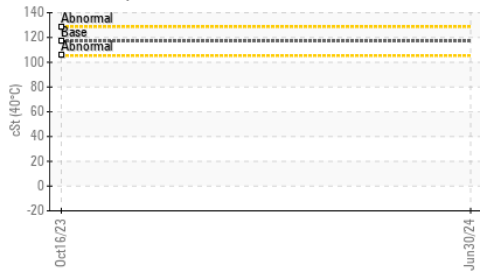
**Base Number**



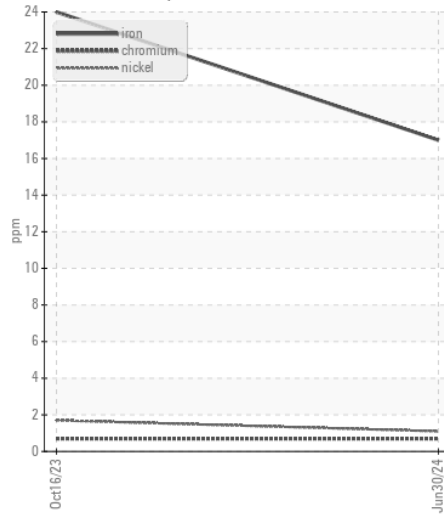
**Viscosity @ 100°C**



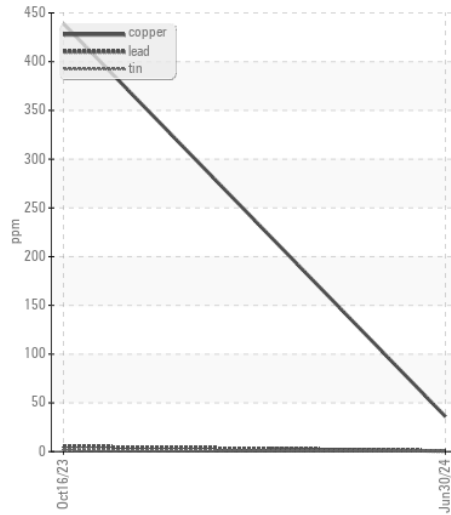
**Viscosity @ 40°C**



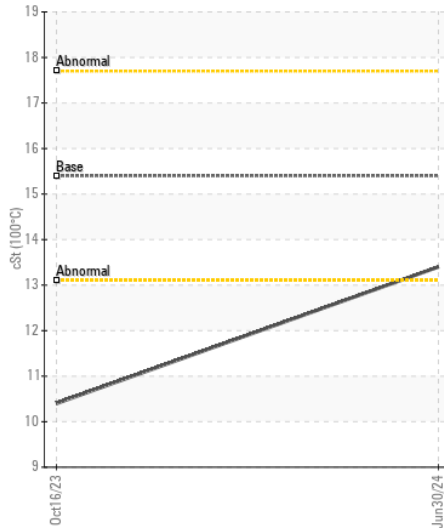
**Ferrous Alloys**



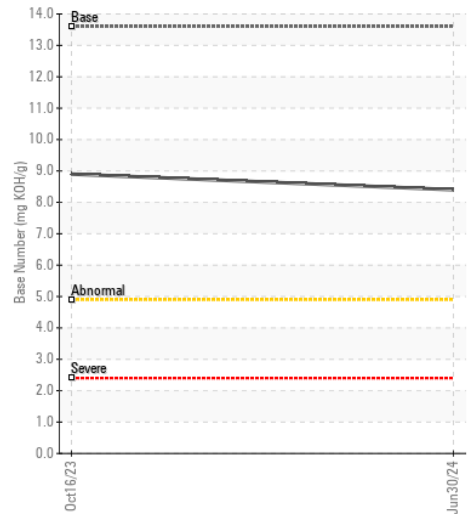
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0223158 **Received** : 01 Jul 2024  
**Lab Number** : 06224311 **Tested** : 02 Jul 2024  
**Unique Number** : 11102508 **Diagnosed** : 02 Jul 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: KV40, TBN )

**JRE - GREENSBORO**  
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 F: (336)665-9556

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)