



|                 |           |
|-----------------|-----------|
| WEAR            | NORMAL    |
| CONTAMINATION   | ATTENTION |
| FLUID CONDITION | NORMAL    |

Machine Id  
**JOHN DEERE 310L 1T0310LXLJF340157**

Component  
**Hydraulic System**

Fluid  
**JOHN DEERE HYDRAU (--- 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>JR0212119</b>   | JR0199895   | JR0147496   |
| Sample Date    |     | Client Info |           | <b>29 May 2024</b> | 07 Mar 2024 | 22 Sep 2022 |
| Machine Age    | hrs | Client Info |           | <b>3246</b>        | 3809        | 2428        |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Not Changd  | Not Changd  |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | Not Changd  |
| Sample Status  |     |             |           | <b>ATTENTION</b>   | NORMAL      | NORMAL      |

### WEAR

All component wear rates are normal.

| PQ           | UOM    | Method      | Limit/Abn | Current      | History1 | History2 |
|--------------|--------|-------------|-----------|--------------|----------|----------|
| Iron         | ppm    | ASTM D5185m | >20       | <b>16</b>    | 7        | 10       |
| Chromium     | ppm    | ASTM D5185m | >10       | <b>9</b>     | 3        | 4        |
| Nickel       | ppm    | ASTM D5185m | >10       | <b>0</b>     | 0        | 0        |
| Titanium     | ppm    | ASTM D5185m |           | <b>0</b>     | <1       | 0        |
| Silver       | ppm    | ASTM D5185m |           | <b>0</b>     | 0        | 0        |
| Aluminum     | ppm    | ASTM D5185m | >10       | <b>4</b>     | 2        | 3        |
| Lead         | ppm    | ASTM D5185m | >10       | <b>&lt;1</b> | <1       | <1       |
| Copper       | ppm    | ASTM D5185m | >75       | <b>2</b>     | 2        | 2        |
| Tin          | ppm    | ASTM D5185m | >10       | <b>&lt;1</b> | <1       | 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

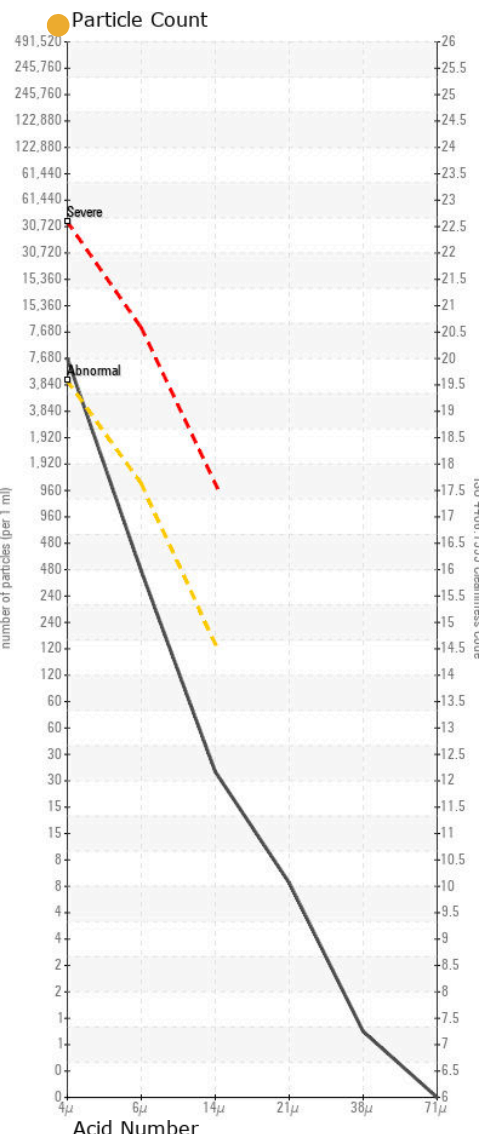
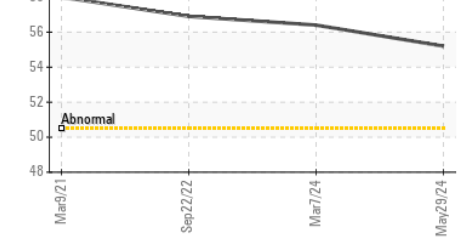
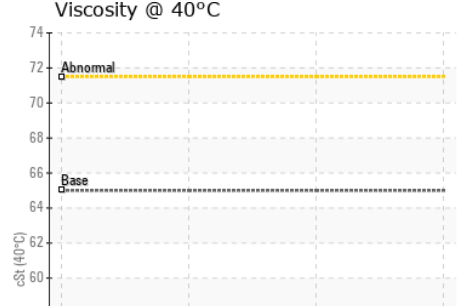
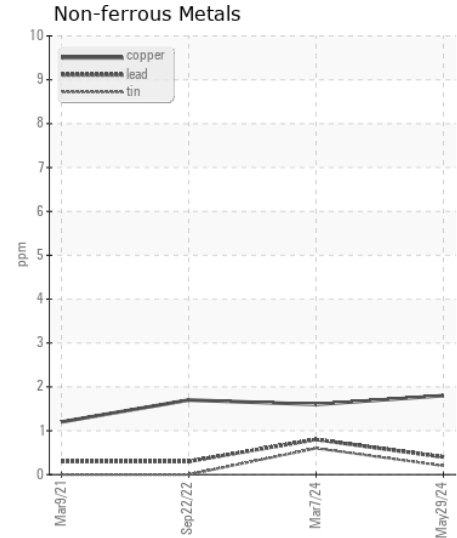
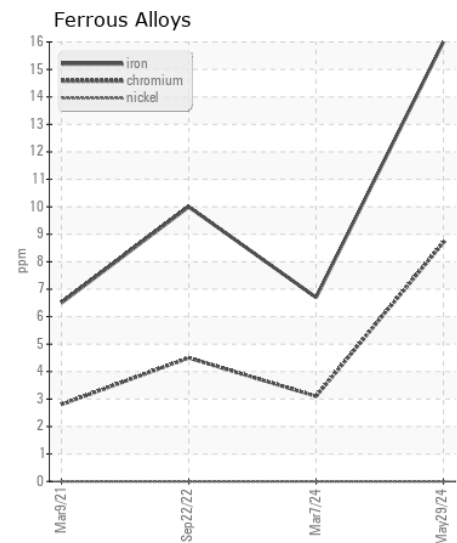
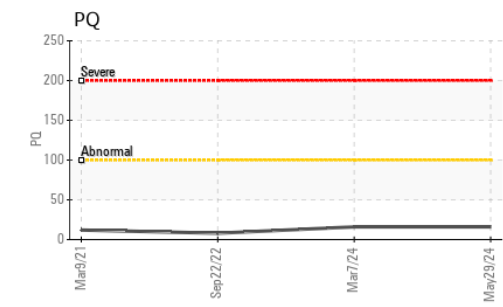
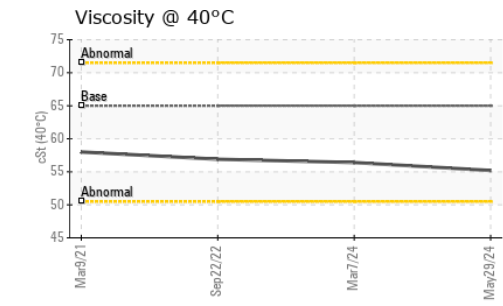
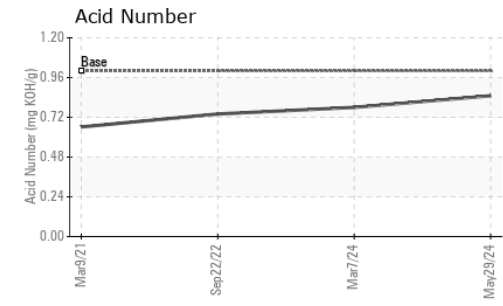
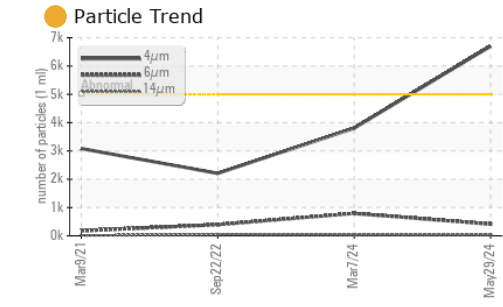
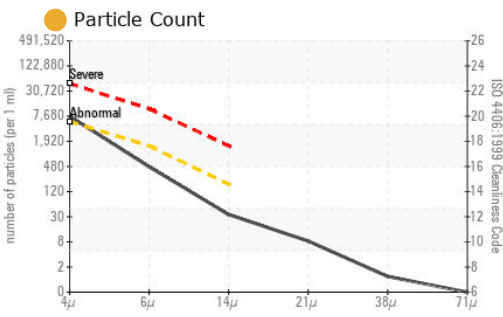
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

|                  |        |              |           |                 |          |          |
|------------------|--------|--------------|-----------|-----------------|----------|----------|
| Silicon          | ppm    | ASTM D5185m  | >20       | <b>8</b>        | 3        | 4        |
| Potassium        | ppm    | ASTM D5185m  | >20       | <b>7</b>        | 2        | 6        |
| Water            |        | WC Method    | >0.1      | <b>NEG</b>      | NEG      | NEG      |
| Particles >4µm   |        | ASTM D7647   | >5000     | <b>6704</b>     | 3807     | 2207     |
| Particles >6µm   |        | ASTM D7647   | >1300     | <b>415</b>      | 792      | 394      |
| Particles >14µm  |        | ASTM D7647   | >160      | <b>30</b>       | 36       | 46       |
| Particles >21µm  |        | ASTM D7647   | >40       | <b>7</b>        | 5        | 11       |
| Particles >38µm  |        | ASTM D7647   | >10       | <b>1</b>        | 0        | 0        |
| Particles >71µm  |        | ASTM D7647   | >3        | <b>0</b>        | 0        | 0        |
| Oil Cleanliness  |        | ISO 4406 (c) | >19/17/14 | <b>20/16/12</b> | 19/17/12 | 18/16/13 |
| Silt             | scalar | *Visual      | NONE      | <b>NONE</b>     | NONE     | NONE     |
| Debris           | scalar | *Visual      | NONE      | <b>LIGHT</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      | >0.1      | <b>NEG</b>      | NEG      | NEG      |

### FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

|                  |          |             |      |              |      |      |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium           | ppm      | ASTM D5185m |      | <b>&lt;1</b> | 2    | 0    |
| Boron            | ppm      | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>     | 0    | 1    |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>&lt;1</b> | <1   | <1   |
| Manganese        | ppm      | ASTM D5185m |      | <b>0</b>     | <1   | <1   |
| Magnesium        | ppm      | ASTM D5185m |      | <b>7</b>     | 4    | 6    |
| Calcium          | ppm      | ASTM D5185m | 87   | <b>251</b>   | 537  | 263  |
| Phosphorus       | ppm      | ASTM D5185m | 727  | <b>643</b>   | 718  | 656  |
| Zinc             | ppm      | ASTM D5185m | 900  | <b>885</b>   | 798  | 889  |
| Sulfur           | ppm      | ASTM D5185m | 1500 | <b>1811</b>  | 2191 | 2133 |
| Acid Number (AN) | mg KOH/g | ASTM D8045  | 1.0  | <b>0.85</b>  | 0.78 | 0.74 |
| Visc @ 40°C      | cSt      | ASTM D445   | 65   | <b>55.2</b>  | 56.4 | 56.9 |



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0212119 **Received** : 30 May 2024  
**Lab Number** : 06195321 **Tested** : 31 May 2024  
**Unique Number** : 11057444 **Diagnosed** : 01 Jun 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

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Certificate L2367  
 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)