



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

Area  
**[W50610]**

Machine Id  
**JOHN DEERE 310L 1T0310LXKJF340703**

Component  
**Hydraulic System**

Fluid  
**JOHN DEERE HYDRAU (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>JR0179729</b>   | JR0165832   | JR0106363   |
| Sample Date    |     | Client Info |           | <b>09 Apr 2024</b> | 02 May 2023 | 14 Jun 2022 |
| Machine Age    | hrs | Client Info |           | <b>2972</b>        | 2474        | 1953        |
| 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>Not Changed</b> | Not Changed | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Not Changed | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

### WEAR

All component wear rates are normal.

| PQ           | UOM    | Method      | Limit/Abn | Current      | History1 | History2 |
|--------------|--------|-------------|-----------|--------------|----------|----------|
| Iron         | ppm    | ASTM D5185m | >20       | <b>6</b>     | 4        | 5        |
| Chromium     | ppm    | ASTM D5185m | >10       | <b>5</b>     | 2        | 3        |
| Nickel       | ppm    | ASTM D5185m | >10       | <b>0</b>     | <1       | 0        |
| Titanium     | ppm    | ASTM D5185m |           | <b>0</b>     | 0        | 0        |
| Silver       | ppm    | ASTM D5185m |           | <b>0</b>     | 0        | <1       |
| Aluminum     | ppm    | ASTM D5185m | >10       | <b>&lt;1</b> | 0        | 1        |
| Lead         | ppm    | ASTM D5185m | >10       | <b>0</b>     | <1       | 0        |
| Copper       | ppm    | ASTM D5185m | >75       | <b>2</b>     | <1       | <1       |
| Tin          | ppm    | ASTM D5185m | >10       | <b>0</b>     | 0        | <1       |
| Vanadium     | ppm    | ASTM D5185m |           | <b>0</b>     | 0        | 0        |
| White Metal  | scalar | *Visual     | NONE      | <b>NONE</b>  | NONE     | NONE     |
| Yellow Metal | scalar | *Visual     | NONE      | <b>NONE</b>  | NONE     | NONE     |

### CONTAMINATION

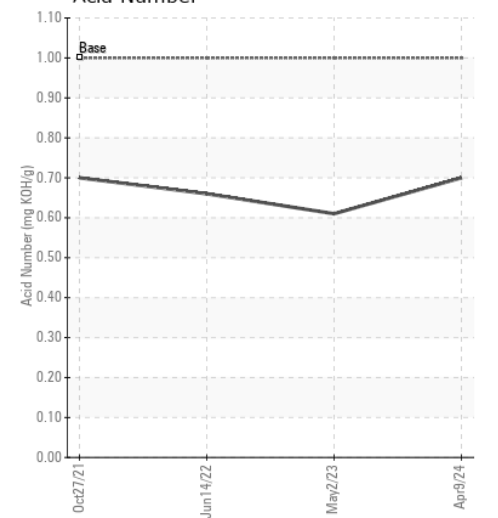
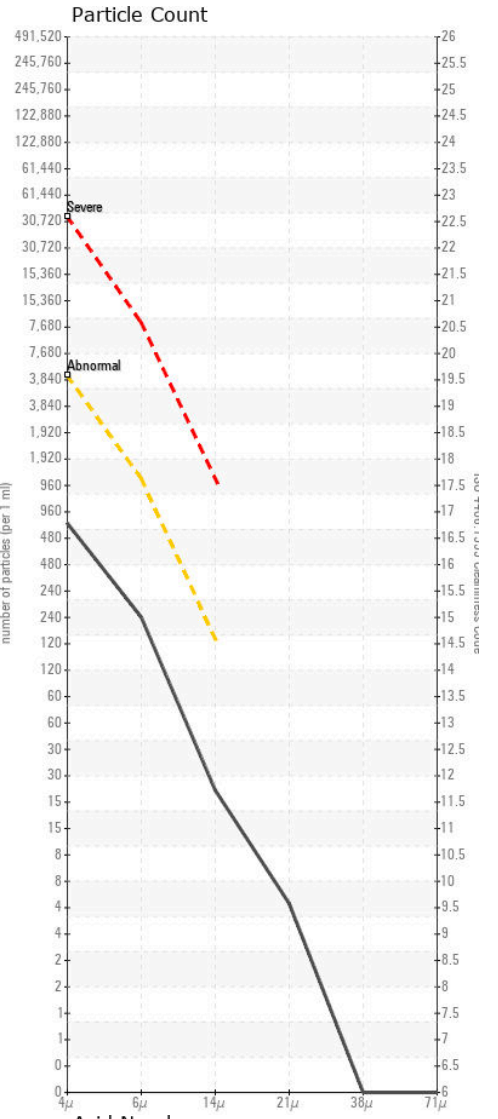
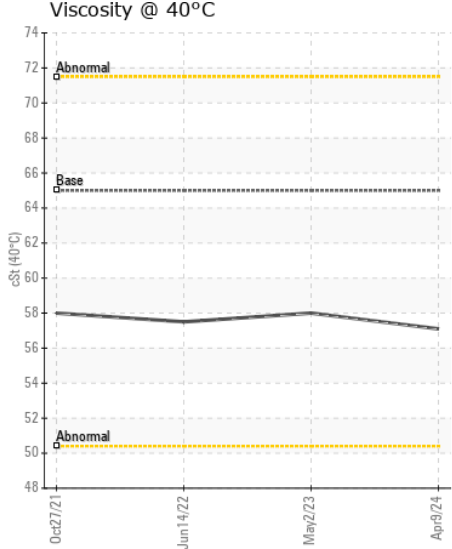
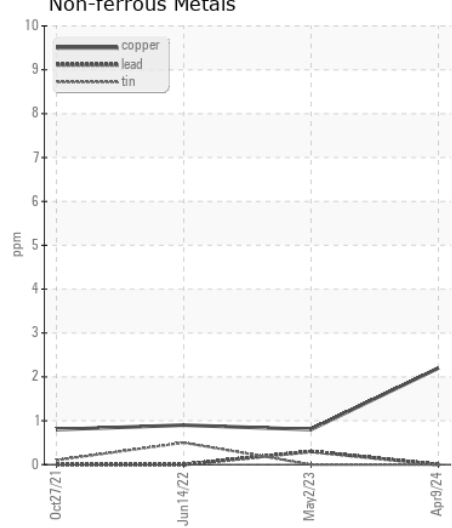
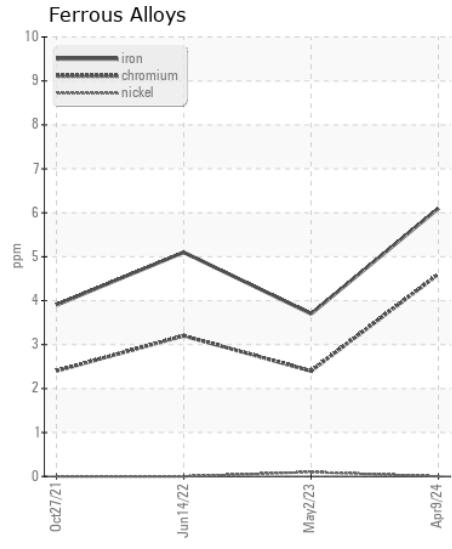
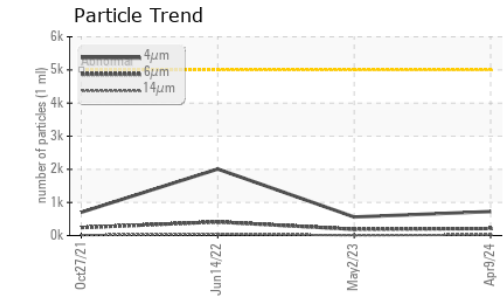
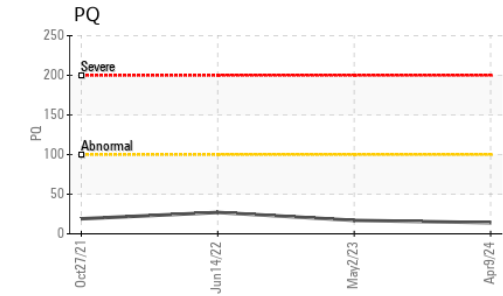
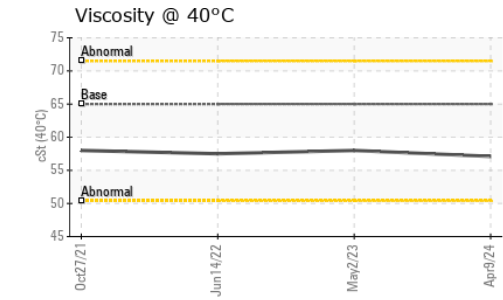
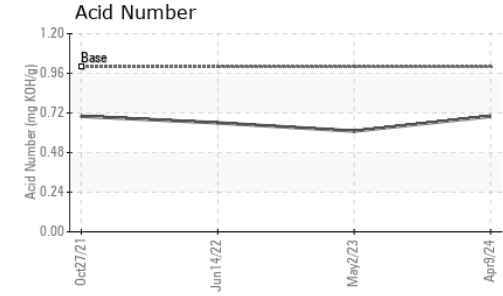
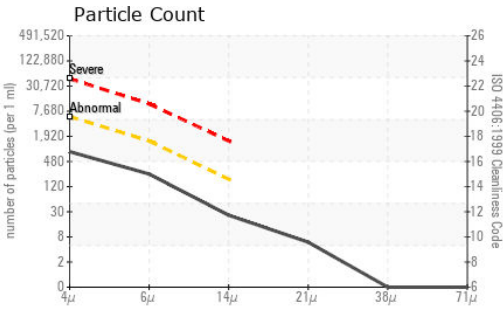
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

|                  |        |              |           |                 |          |          |
|------------------|--------|--------------|-----------|-----------------|----------|----------|
| Silicon          | ppm    | ASTM D5185m  | >20       | <b>2</b>        | <1       | 2        |
| Potassium        | ppm    | ASTM D5185m  | >20       | <b>2</b>        | 3        | 2        |
| Water            |        | WC Method    | >0.1      | <b>NEG</b>      | NEG      | NEG      |
| Particles >4µm   |        | ASTM D7647   | >5000     | <b>725</b>      | 561      | 2009     |
| Particles >6µm   |        | ASTM D7647   | >1300     | <b>212</b>      | 190      | 412      |
| Particles >14µm  |        | ASTM D7647   | >160      | <b>22</b>       | 9        | 38       |
| Particles >21µm  |        | ASTM D7647   | >40       | <b>5</b>        | 2        | 11       |
| Particles >38µm  |        | ASTM D7647   | >10       | <b>0</b>        | 0        | 0        |
| Particles >71µm  |        | ASTM D7647   | >3        | <b>0</b>        | 0        | 0        |
| Oil Cleanliness  |        | ISO 4406 (c) | >19/17/14 | <b>17/15/12</b> | 16/15/10 | 18/16/12 |
| Silt             | scalar | *Visual      | NONE      | <b>NONE</b>     | NONE     | NONE     |
| Debris           | scalar | *Visual      | NONE      | <b>NONE</b>     | NONE     | VLITE    |
| 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>2</b>     | 0    | 1    |
| Boron            | ppm      | ASTM D5185m |      | <b>0</b>     | 0    | <1   |
| Barium           | ppm      | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>0</b>     | <1   | <1   |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | 0    | 0    |
| Magnesium        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | 2    | 0    |
| Calcium          | ppm      | ASTM D5185m | 87   | <b>107</b>   | 117  | 150  |
| Phosphorus       | ppm      | ASTM D5185m | 727  | <b>616</b>   | 616  | 590  |
| Zinc             | ppm      | ASTM D5185m | 900  | <b>789</b>   | 855  | 822  |
| Sulfur           | ppm      | ASTM D5185m | 1500 | <b>1778</b>  | 1679 | 1596 |
| Acid Number (AN) | mg KOH/g | ASTM D8045  | 1.0  | <b>0.70</b>  | 0.61 | 0.66 |
| Visc @ 40°C      | cSt      | ASTM D445   | 65   | <b>57.1</b>  | 58.0 | 57.5 |



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0179729 **Received** : 11 Apr 2024  
**Lab Number** : 06145749 **Tested** : 12 Apr 2024  
**Unique Number** : 10970557 **Diagnosed** : 12 Apr 2024 - Wes Davis  
**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)