



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



Machine Id  
**JOHN DEERE 210G 1FF210GXPLF528983**

Component  
**Hydraulic System**

Fluid  
**JOHN DEERE ZINC-FREE HYDRAULIC OIL 46 (60 GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>JR0221016</b>   | JR0201033   | JR0173753   |
| Sample Date    |     | Client Info |           | <b>08 Jul 2024</b> | 29 Mar 2024 | 14 Jun 2023 |
| Machine Age    | hrs | Client Info |           | <b>2496</b>        | 2167        | 1516        |
| Oil Age        | hrs | Client Info |           | <b>1845</b>        | 651         | 1516        |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 651         | 0           |
| Oil Changed    |     | Client Info |           | <b>Not Chngd</b>   | Not Chngd   | 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.

|              |        |             |      |              |      |      |
|--------------|--------|-------------|------|--------------|------|------|
| PQ           |        | ASTM D8184  | >50  | <b>17</b>    | 16   | 12   |
| Iron         | ppm    | ASTM D5185m | >32  | <b>2</b>     | 2    | 3    |
| Chromium     | ppm    | ASTM D5185m | >9   | <b>&lt;1</b> | 0    | 0    |
| Nickel       | ppm    | ASTM D5185m | >5   | <b>&lt;1</b> | 0    | 0    |
| Titanium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | 0    |
| Silver       | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | 0    |
| Aluminum     | ppm    | ASTM D5185m | >9   | <b>2</b>     | 0    | 0    |
| Lead         | ppm    | ASTM D5185m | >28  | <b>&lt;1</b> | 0    | 0    |
| Copper       | ppm    | ASTM D5185m | >50  | <b>1</b>     | 0    | <1   |
| Tin          | ppm    | ASTM D5185m | >5   | <b>&lt;1</b> | 0    | 0    |
| Vanadium     | ppm    | ASTM D5185m |      | <b>&lt;1</b> | 0    | 0    |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b>  | NONE | NONE |

### CONTAMINATION

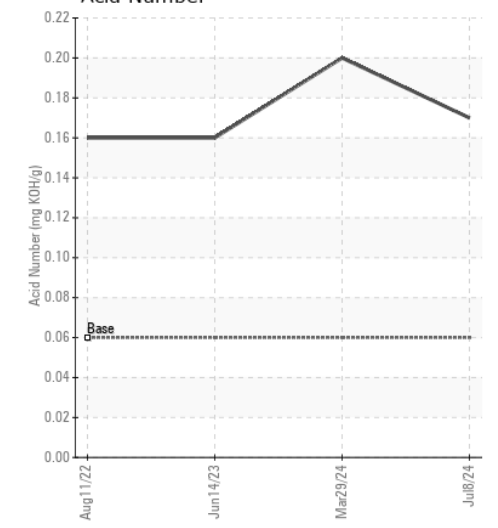
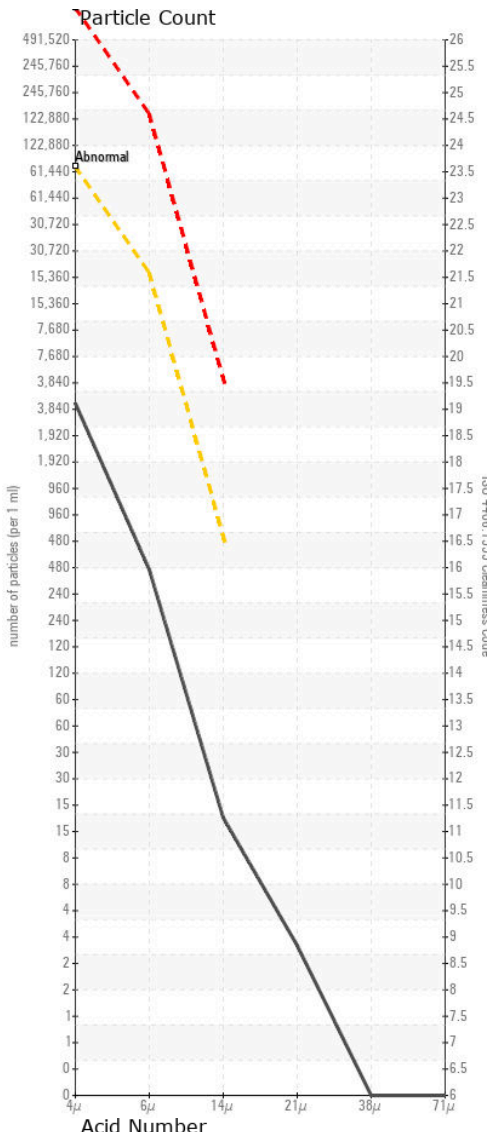
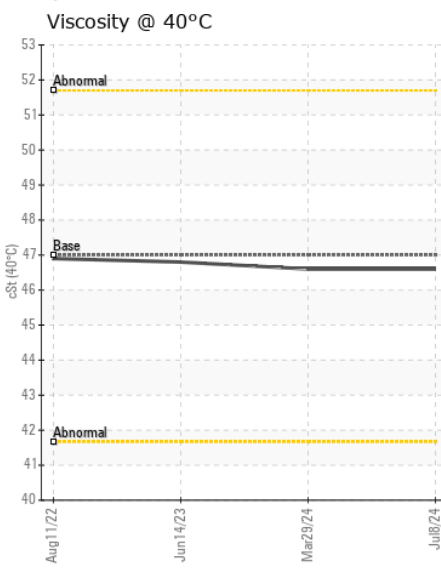
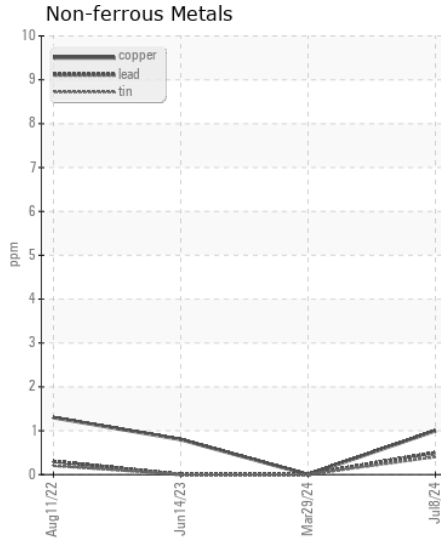
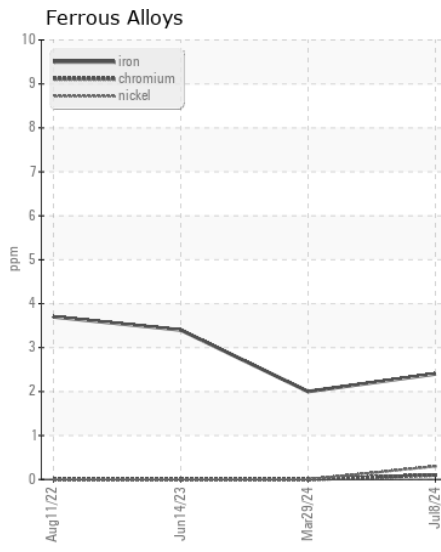
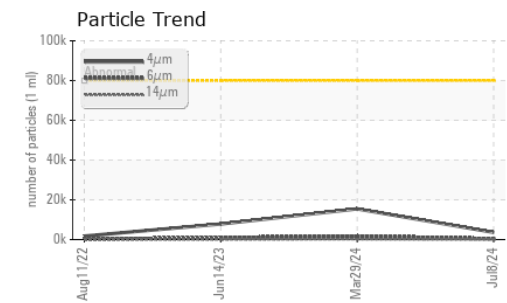
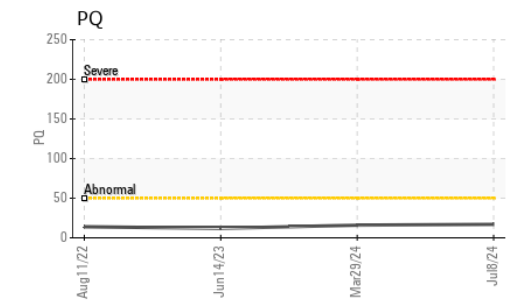
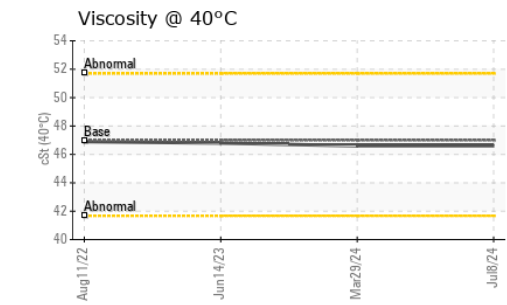
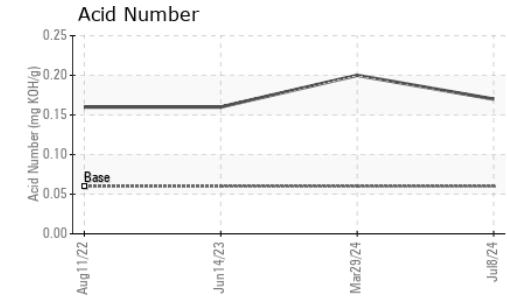
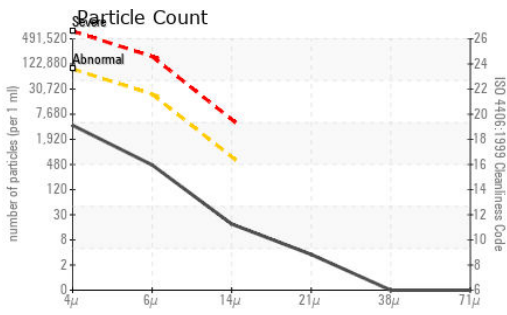
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

|                  |        |              |           |                 |          |          |
|------------------|--------|--------------|-----------|-----------------|----------|----------|
| Silicon          | ppm    | ASTM D5185m  | >11       | <b>1</b>        | <1       | <1       |
| Potassium        | ppm    | ASTM D5185m  | >20       | <b>2</b>        | <1       | 1        |
| Water            |        | WC Method    | >0.075    | <b>NEG</b>      | NEG      | NEG      |
| Particles >4µm   |        | ASTM D7647   | >80000    | <b>3625</b>     | 15447    | 7838     |
| Particles >6µm   |        | ASTM D7647   | >20000    | <b>411</b>      | 1763     | 953      |
| Particles >14µm  |        | ASTM D7647   | >640      | <b>16</b>       | 178      | 45       |
| Particles >21µm  |        | ASTM D7647   | >160      | <b>3</b>        | 57       | 12       |
| Particles >38µm  |        | ASTM D7647   | >40       | <b>0</b>        | 2        | 0        |
| Particles >71µm  |        | ASTM D7647   | >10       | <b>0</b>        | 0        | 0        |
| Oil Cleanliness  |        | ISO 4406 (c) | >23/21/16 | <b>19/16/11</b> | 21/18/15 | 20/17/13 |
| 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      | >0.075    | <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 | >21  | <b>0</b>     | 0    | 0    |
| Boron            | ppm      | ASTM D5185m |      | <b>0</b>     | 0    | 0    |
| Barium           | ppm      | ASTM D5185m |      | <b>&lt;1</b> | 0    | 2    |
| Molybdenum       | ppm      | ASTM D5185m |      | <b>&lt;1</b> | 0    | 0    |
| Manganese        | ppm      | ASTM D5185m |      | <b>&lt;1</b> | 0    | 0    |
| Magnesium        | ppm      | ASTM D5185m |      | <b>1</b>     | 0    | <1   |
| Calcium          | ppm      | ASTM D5185m |      | <b>9</b>     | <1   | 1    |
| Phosphorus       | ppm      | ASTM D5185m |      | <b>497</b>   | 464  | 475  |
| Zinc             | ppm      | ASTM D5185m |      | <b>16</b>    | 9    | 24   |
| Sulfur           | ppm      | ASTM D5185m |      | <b>83</b>    | 81   | 105  |
| Acid Number (AN) | mg KOH/g | ASTM D8045  | 0.06 | <b>0.17</b>  | 0.20 | 0.16 |
| Visc @ 40°C      | cSt      | ASTM D445   | 47   | <b>46.6</b>  | 46.6 | 46.8 |



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0221016 **Received** : 09 Jul 2024  
**Lab Number** : 06231401 **Tested** : 10 Jul 2024  
**Unique Number** : 11114894 **Diagnosed** : 10 Jul 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

**JRE - NEW BERN**  
 3816 MARTIN LUTHER KING BLVD  
 NEW BERN, NC  
 US 28562  
 Contact: NEW BERN SHOP  
 nick.etherdridge@jamesriverequipment.com; canastasio@wearcheckusa.com

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)