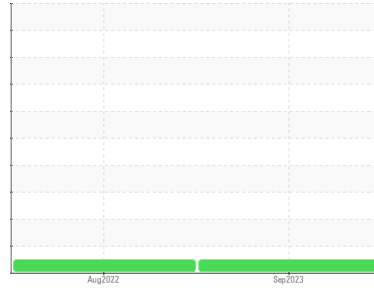




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**D-232**

Component  
**Hydrostatic**  
Fluid

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

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

### Fluid Condition

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

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1    | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|----------|
| Sample Number      | Client Info |             |            | <b>WC0828530</b>   | WC0703750   | ---      |
| Sample Date        | Client Info |             |            | <b>21 Sep 2023</b> | 02 Aug 2022 | ---      |
| Machine Age        | hrs         | Client Info |            | <b>2279</b>        | 858         | ---      |
| Oil Age            | hrs         | Client Info |            | <b>1167</b>        | 858         | ---      |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | Not Changd  | ---      |
| Sample Status      |             |             |            | <b>NORMAL</b>      | NORMAL      | ---      |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >200       | <b>18</b>    | 11       | ---      |
| Chromium    | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 0        | ---      |
| Nickel      | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | ---      |
| Titanium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | ---      |
| Silver      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | ---      |
| Aluminum    | ppm | ASTM D5185m | >50        | <b>5</b>     | 1        | ---      |
| Lead        | ppm | ASTM D5185m | >50        | <b>1</b>     | <1       | ---      |
| Copper      | ppm | ASTM D5185m | >200       | <b>19</b>    | 10       | ---      |
| Tin         | ppm | ASTM D5185m | >10        | <b>0</b>     | 0        | ---      |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | ---      |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | ---      |

| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>     | <1       | ---      |
| Barium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | ---      |
| Molybdenum | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | ---      |
| Manganese  | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | ---      |
| Magnesium  | ppm | ASTM D5185m |            | <b>1</b>     | <1       | ---      |
| Calcium    | ppm | ASTM D5185m | 87         | <b>91</b>    | 75       | ---      |
| Phosphorus | ppm | ASTM D5185m | 727        | <b>714</b>   | 586      | ---      |
| Zinc       | ppm | ASTM D5185m | 900        | <b>984</b>   | 784      | ---      |
| Sulfur     | ppm | ASTM D5185m | 1500       | <b>2003</b>  | 1841     | ---      |

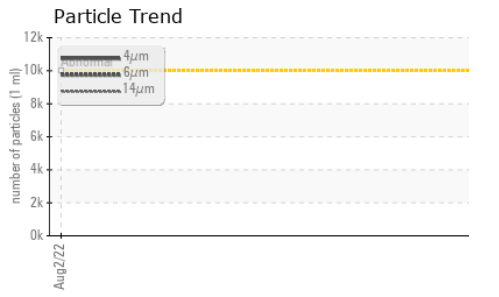
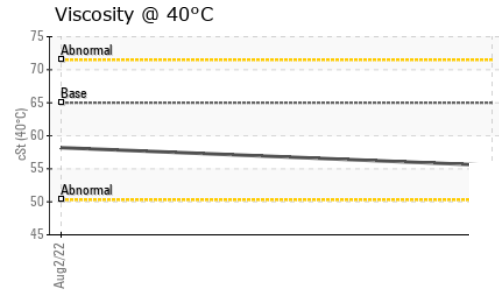
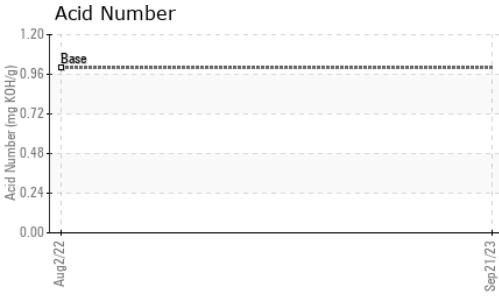
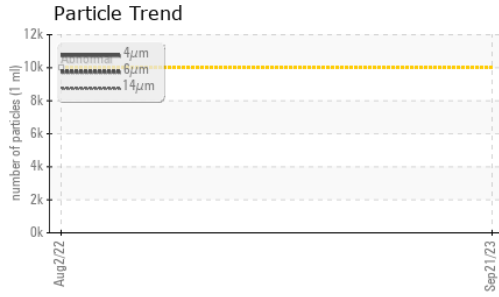
| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >50        | <b>8</b>     | 3        | ---      |
| Sodium       | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | ---      |
| Potassium    | ppm | ASTM D5185m | >20        | <b>3</b>     | 2        | ---      |

| FLUID CLEANLINESS |  | method       | limit/base | current         | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   | >10000     | <b>1412</b>     | ---      | ---      |
| Particles >6µm    |  | ASTM D7647   | >2500      | <b>308</b>      | ---      | ---      |
| Particles >14µm   |  | ASTM D7647   | >320       | <b>10</b>       | ---      | ---      |
| Particles >21µm   |  | ASTM D7647   | >80        | <b>2</b>        | ---      | ---      |
| Particles >38µm   |  | ASTM D7647   | >20        | <b>0</b>        | ---      | ---      |
| Particles >71µm   |  | ASTM D7647   | >4         | <b>0</b>        | ---      | ---      |
| Oil Cleanliness   |  | ISO 4406 (c) | >20/18/15  | <b>18/15/10</b> | ---      | ---      |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 1.0        | <b>0.69</b> | ---      | ---      |



# OIL ANALYSIS REPORT



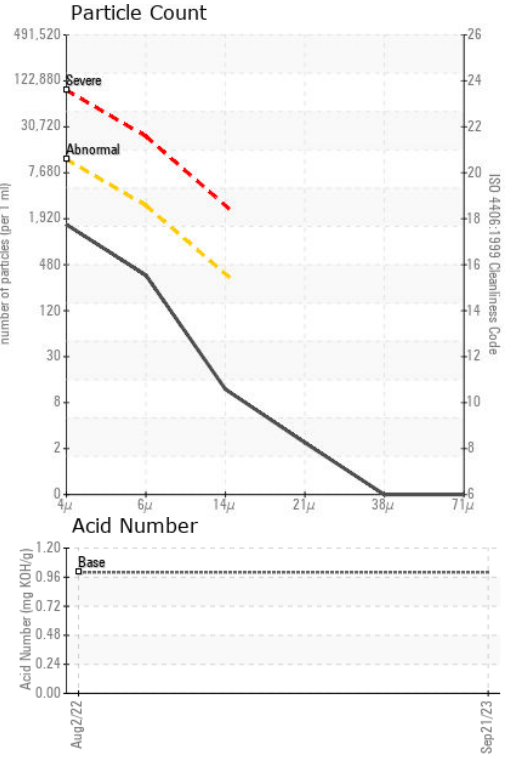
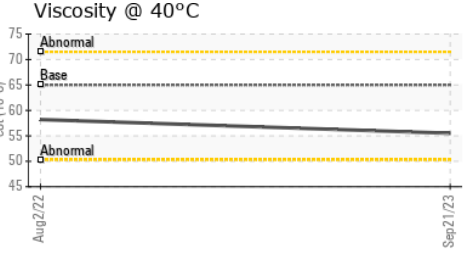
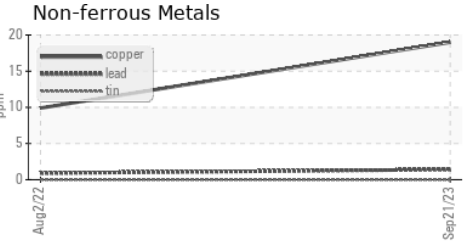
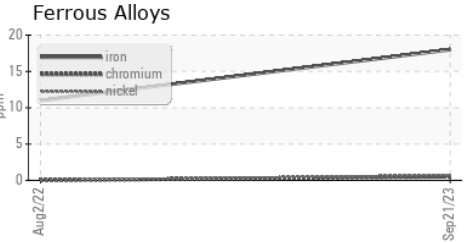
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | ---      |
| Silt             | scalar | *Visual    | NONE    | NONE     | ---      |
| Debris           | scalar | *Visual    | NONE    | NONE     | ---      |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | ---      |
| Appearance       | scalar | *Visual    | NORML   | NORML    | ---      |
| Odor             | scalar | *Visual    | NORML   | NORML    | ---      |
| Emulsified Water | scalar | *Visual    | >0.1    | NEG      | ---      |
| Free Water       | scalar | *Visual    |         | NEG      | ---      |

| FLUID PROPERTIES | method | limit/base   | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445 65 | 55.5    | 58.2     | ---      |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|

|        |  |          |          |
|--------|--|----------|----------|
| Color  |  | no image | no image |
| Bottom |  | no image | no image |

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0828530 **Received** : 02 Oct 2023  
**Lab Number** : 05966223 **Diagnosed** : 03 Oct 2023  
**Unique Number** : 10672774 **Diagnostician** : Don Baldrige  
**Test Package** : CONST ( Additional Tests: PrtCount )

**DUKE LAZZARA**  
 4201 FAYETTEVILLE RD  
 RALEIGH, NC  
 US 27603  
 Contact: NICK DIXON  
 NICK.DIXON@DUKELAZZAM.COM  
 T: (919)760-7797  
 F:

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)