

#### Machine Id **JOHN DEERE PM061171** Component **Rear Differential** Fluid **JOHN DEERE HY-GARD HYD/TRANS (8 GAL)**

#### RECOMMENDATION

We advise that you check for the source of water entry. We recommend an early resample to monitor this condition.

### WEAR

All component wear rates are normal.

## CONTAMINATION

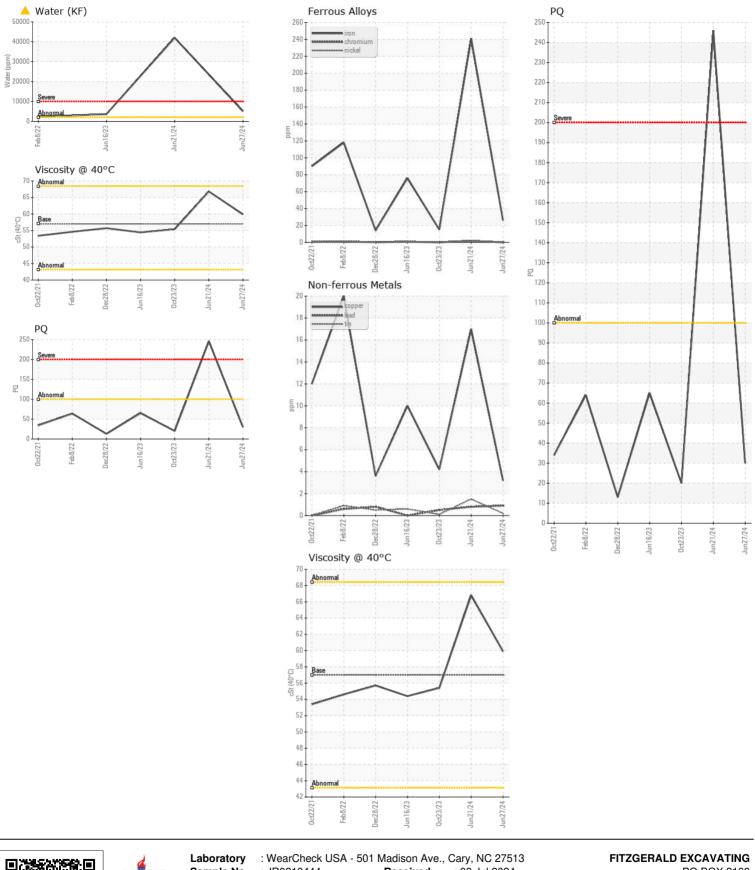
There is a moderate concentration of water present in the oil.

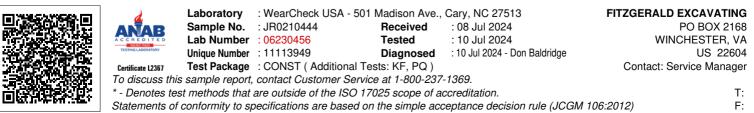
# **FLUID CONDITION**

The condition of the oil is acceptable for the time in service.

| Test             | UOM    | Method      | Limit/Abn | Current       | History1      | History2    |
|------------------|--------|-------------|-----------|---------------|---------------|-------------|
| Sample Number    |        | Client Info |           | JR0210444     | JR0218315     | JR0190179   |
| Sample Date      |        | Client Info |           | 27 Jun 2024   | 21 Jun 2024   | 23 Oct 2023 |
| Machine Age      | hrs    | Client Info |           | 2996          | 2994          | 2451        |
| Oil Age          | hrs    | Client Info |           | 2             | 1000          | 0           |
| Filter Age       | hrs    | Client Info |           | 2             | 1000          | 0           |
| Oil Changed      |        | Client Info |           | Not Changd    | Changed       | Not Changd  |
| Filter Changed   |        | Client Info |           | Not Changd    | Changed       | Not Changd  |
| Sample Status    |        |             |           | ABNORMAL      | SEVERE        | NORMAL      |
| PQ               |        | ASTM D8184  |           | 30            | 246           | 20          |
| Iron             | ppm    | ASTM D5185m | >500      | 26            | 241           | 15          |
| Chromium         | ppm    | ASTM D5185m | >10       | 0             | 2             | 0           |
| Nickel           | ppm    | ASTM D5185m | >10       | <1            | 2             | 0           |
| Titanium         | ppm    | ASTM D5185m |           | 0             | 1             | 0           |
| Silver           | ppm    | ASTM D5185m |           | 0             | <1            | 0           |
| Aluminum         | ppm    | ASTM D5185m | >25       | 2             | 6             | <1          |
| Lead             | ppm    | ASTM D5185m | >25       | <1            | <1            | <1          |
| Copper           | ppm    | ASTM D5185m | >100      | 3             | 17            | 4           |
| Tin              | ppm    | ASTM D5185m | >10       | <1            | 2             | <1          |
| Vanadium         | ppm    | ASTM D5185m |           | 0             | <1            | 0           |
| White Metal      | scalar | *Visual     | NONE      | NONE          | MODER         | NONE        |
| Yellow Metal     | scalar | *Visual     | NONE      | NONE          | NONE          | NONE        |
| Silicon          | ppm    | ASTM D5185m | >75       | 6             | 18            | 4           |
| Potassium        | ppm    | ASTM D5185m | >20       | 2             | 2             | 0           |
| Water            | %      | ASTM D6304  | >.2       | <b>0.514</b>  | 4.20          |             |
| ppm Water        | ppm    | ASTM D6304  | >2000     | <b>6</b> 5140 | <b>42000</b>  |             |
| Silt             | scalar | *Visual     | NONE      | NONE          | NONE          | NONE        |
| Debris           | scalar | *Visual     | NONE      | NONE          | ▲ MODER       | NONE        |
| Sand/Dirt        | scalar | *Visual     | NONE      | NONE          | NONE          | NONE        |
| Appearance       | scalar | *Visual     | NORML     | NORML         | MILKY         | NORML       |
| Odor             | scalar | *Visual     | NORML     | NORML         | NORML         | NORML       |
| Emulsified Water | scalar | *Visual     | >.2       | <b>A</b> 0.2% | <b>1</b> 0.2% | NEG         |
| Sodium           | ppm    | ASTM D5185m |           | 2             | 7             | <1          |
| Boron            | ppm    | ASTM D5185m | 6         | 13            | 32            | 8           |
| Barium           | ppm    | ASTM D5185m | 0         | 0             | 0             | 0           |
| Molybdenum       | ppm    | ASTM D5185m | 0         | 13            | 15            | 5           |
| Manganese        | ppm    | ASTM D5185m |           | 1             | 4             | <1          |
| Magnesium        | ppm    | ASTM D5185m | 145       | 141           | 169           | 109         |
| Calcium          | ppm    | ASTM D5185m | 3570      | 3375          | 3233          | 3150        |
| Phosphorus       | ppm    | ASTM D5185m | 1290      | 1107          | 1079          | 1023        |
| Zinc             | ppm    | ASTM D5185m | 1640      | 1318          | 1295          | 1209        |
| Sulfur           | ppm    | ASTM D5185m |           | 4520          | 3630          | 3610        |
| Visc @ 40°C      | cSt    | ASTM D445   | 57.0      | 59.9          | 66.8          | 55.4        |

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