



| | |
|-----------------|-----------------|
| WEAR | ABNORMAL |
| CONTAMINATION | ABNORMAL |
| FLUID CONDITION | NORMAL |

Machine Id
JOHN DEERE 5090E 1P05090EHNG073737

Component
Hydraulic System

Fluid
JOHN DEERE HY-GARD HYD/TRANS (--- QTS)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|----------|----------|
| Sample Number | | Client Info | | JR0193231 | --- | --- |
| Sample Date | | Client Info | | 20 Feb 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 109 | --- | --- |
| Oil Age | hrs | Client Info | | 0 | --- | --- |
| Filter Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | N/A | --- | --- |
| Filter Changed | | Client Info | | N/A | --- | --- |
| Sample Status | | | | ABNORMAL | --- | --- |

WEAR

The iron level is abnormal. All other metal levels are typical for a new component breaking in.

| PQ | UOM | Method | Limit/Abn | Current | History1 | History2 |
|--------------|--------|-------------|-----------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >20 | ▲ 41 | --- | --- |
| Chromium | ppm | ASTM D5185m | >10 | <1 | --- | --- |
| Nickel | ppm | ASTM D5185m | >10 | 0 | --- | --- |
| Titanium | ppm | ASTM D5185m | | <1 | --- | --- |
| Silver | ppm | ASTM D5185m | | <1 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >10 | 2 | --- | --- |
| Lead | ppm | ASTM D5185m | >10 | 6 | --- | --- |
| Copper | ppm | ASTM D5185m | >75 | 47 | --- | --- |
| Tin | ppm | ASTM D5185m | >10 | <1 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |

CONTAMINATION

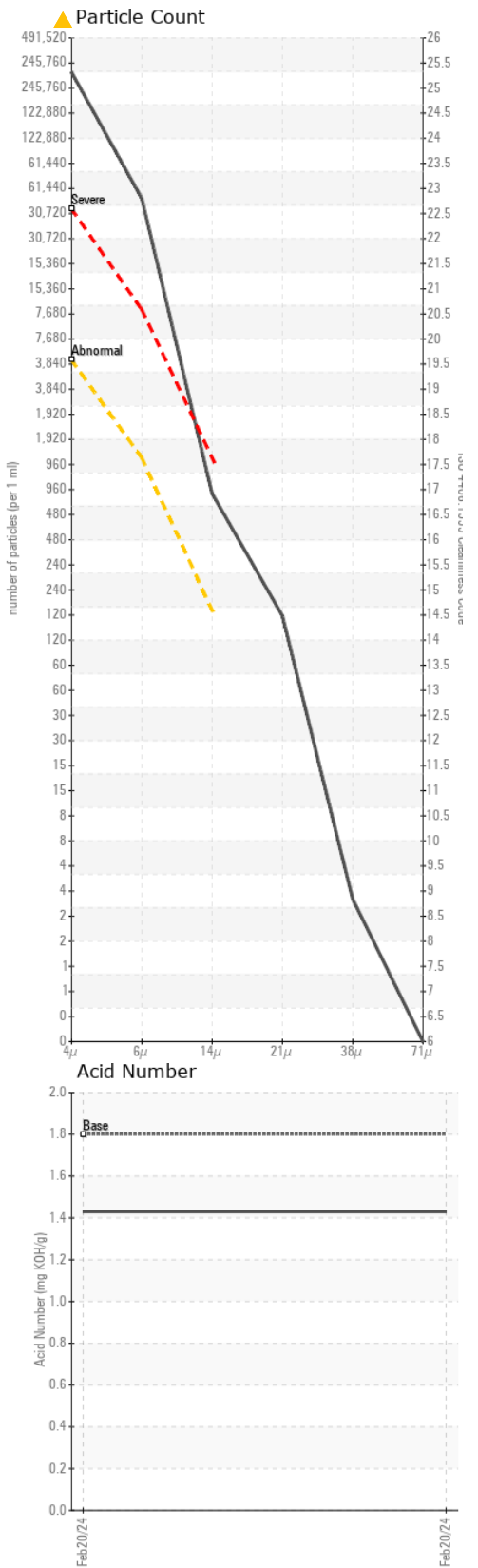
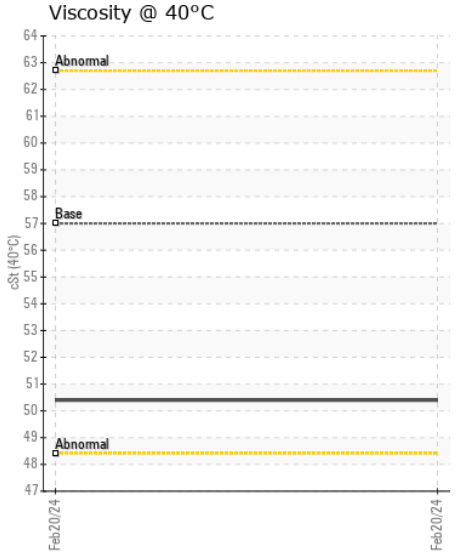
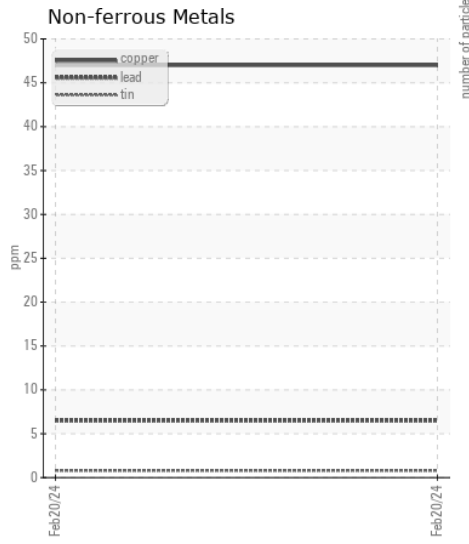
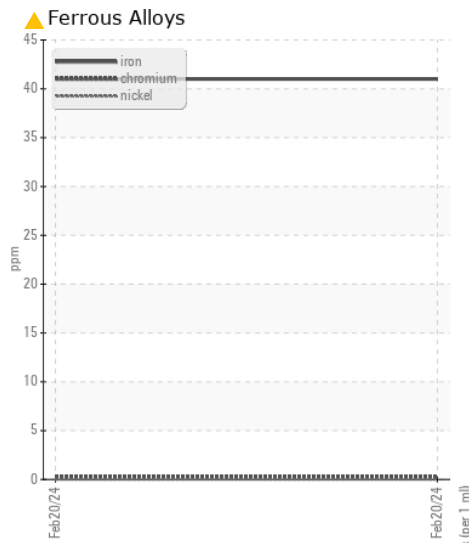
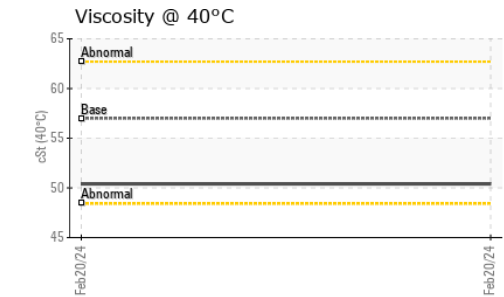
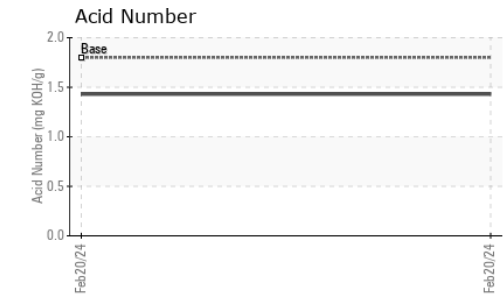
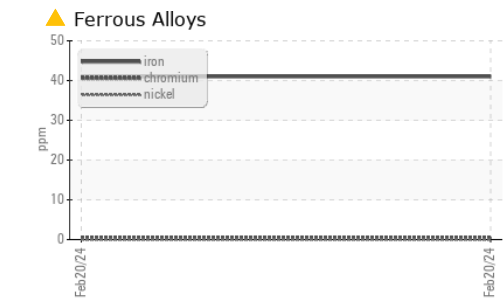
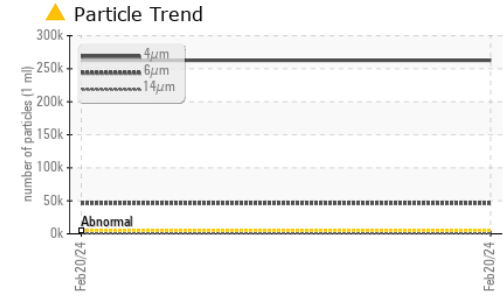
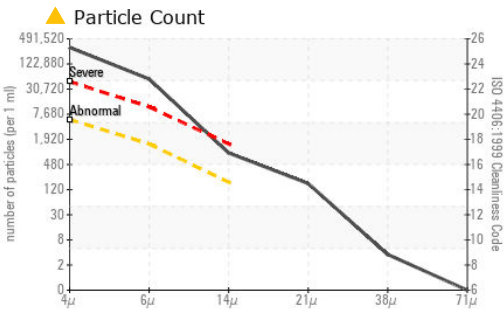
There is a high amount of particulates present in the oil.

| | | | | | | |
|------------------|--------|--------------|-----------|-------------------|-----|-----|
| Silicon | ppm | ASTM D5185m | >20 | 9 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 2 | --- | --- |
| Water | | WC Method | >0.1 | NEG | --- | --- |
| Particles >4µm | | ASTM D7647 | >5000 | ▲ 262632 | --- | --- |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ 46222 | --- | --- |
| Particles >14µm | | ASTM D7647 | >160 | ▲ 796 | --- | --- |
| Particles >21µm | | ASTM D7647 | >40 | ▲ 148 | --- | --- |
| Particles >38µm | | ASTM D7647 | >10 | 3 | --- | --- |
| Particles >71µm | | ASTM D7647 | >3 | 0 | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | ▲ 25/23/17 | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | LIGHT | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.1 | 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 | | 6 | --- | --- |
| Boron | ppm | ASTM D5185m | 6 | 10 | --- | --- |
| Barium | ppm | ASTM D5185m | 0 | <1 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | --- | --- |
| Manganese | ppm | ASTM D5185m | | 3 | --- | --- |
| Magnesium | ppm | ASTM D5185m | 145 | 85 | --- | --- |
| Calcium | ppm | ASTM D5185m | 3570 | 2920 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 1290 | 920 | --- | --- |
| Zinc | ppm | ASTM D5185m | 1640 | 1089 | --- | --- |
| Sulfur | ppm | ASTM D5185m | | 3179 | --- | --- |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.8 | 1.43 | --- | --- |
| Visc @ 40°C | cSt | ASTM D445 | 57.0 | 50.4 | --- | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0193231 **Received** : 28 Feb 2024
Lab Number : 06102866 **Tested** : 29 Feb 2024
Unique Number : 10901096 **Diagnosed** : 29 Feb 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

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)

JRE - STATESVILLE
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