# PROBLEM SUMMARY

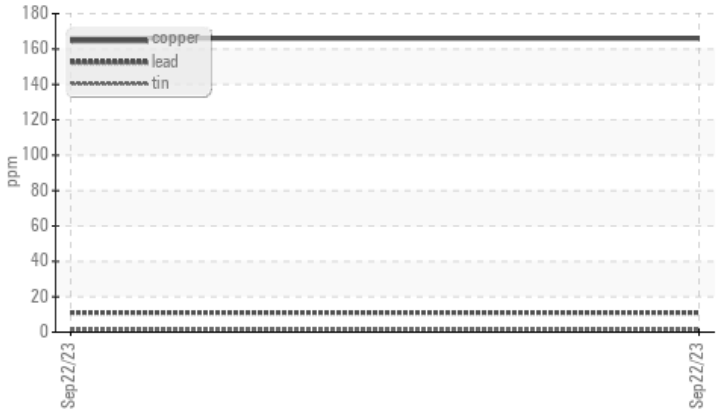
Sample Rating Trend


**WEAR**

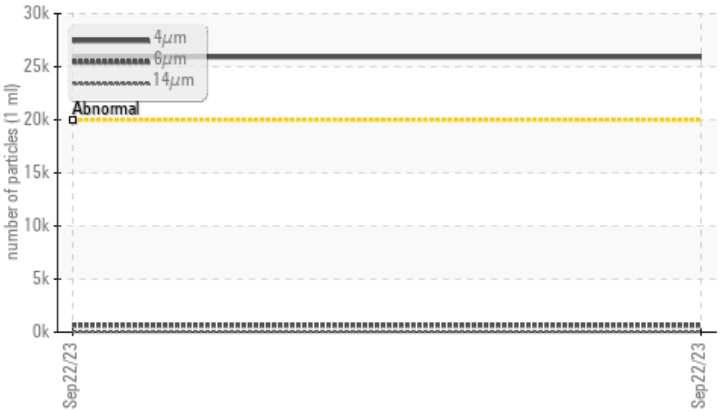
Machine Id
## JOHN DEERE 9770 743390 (S/N 1H09770SAB0743390)
Component
**Hydrostatic**
Fluid
**NOT GIVEN (--- GAL)**

## COMPONENT CONDITION SUMMARY

▲ Non-ferrous Metals




▲ Particle Trend




## RECOMMENDATION

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

## PROBLEMATIC TEST RESULTS

| | | | | | | |
|---|---|---|---|---|---|---|
| Sample Status | | | | **ABNORMAL** | --- | --- |
| Lead | ppm | ASTM D5185m | >11 | ▲ **11** | --- | --- |
| Copper | ppm | ASTM D5185m | >41 | ▲ **166** | --- | --- |
| Particles >4µm | | ASTM D7647 | >20000 | ▲ **25917** | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >21/19/16 | ▲ **22/17/13** | --- | --- |

**Customer Id:** JAMMONJRE
**Sample No.:** JR0151022
**Lab Number:** 05961175
**Test Package:** CONST

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
Don Baldridge +1
don.b505@comcast.net

*To change component or sample information:*
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

## RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---|---|---|---|---|
| Resample | --- | --- | ? | We recommend an early resample to monitor this condition. |

## HISTORICAL DIAGNOSIS

# OIL ANALYSIS REPORT

Sample Rating Trend


**WEAR**

Machine Id
## JOHN DEERE 9770 743390 (S/N 1H09770SAB0743390)
Component
**Hydrostatic**
Fluid
**NOT GIVEN (--- GAL)**

## DIAGNOSIS

**▲ Recommendation**
No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

**▲ Wear**
Bearing and/or bushing wear is indicated.

**▲ Contamination**
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

**Fluid Condition**
The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **JR0151022** | --- | --- |
| Sample Date | | Client Info | | **22 Sep 2023** | --- | --- |
| Machine Age | hrs | Client Info | | **4769** | --- | --- |
| Oil Age | hrs | Client Info | | **0** | --- | --- |
| Oil Changed | | Client Info | | **N/A** | --- | --- |
| Sample Status | | | | **ABNORMAL** | --- | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| PQ | | ASTM D8184 | | **16** | --- | --- |
| Iron | ppm | ASTM D5185m | >31 | **12** | --- | --- |
| Chromium | ppm | ASTM D5185m | >9 | **<1** | --- | --- |
| Nickel | ppm | ASTM D5185m | >5 | **<1** | --- | --- |
| Titanium | ppm | ASTM D5185m | | **0** | --- | --- |
| Silver | ppm | ASTM D5185m | | **0** | --- | --- |
| Aluminum | ppm | ASTM D5185m | >10 | **0** | --- | --- |
| Lead | ppm | ASTM D5185m | >11 | ▲ **11** | --- | --- |
| Copper | ppm | ASTM D5185m | >41 | ▲ **166** | --- | --- |
| Tin | ppm | ASTM D5185m | >5 | **1** | --- | --- |
| Vanadium | ppm | ASTM D5185m | | **<1** | --- | --- |
| Cadmium | ppm | ASTM D5185m | | **0** | --- | --- |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **<1** | --- | --- |
| Barium | ppm | ASTM D5185m | | **0** | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | **1** | --- | --- |
| Manganese | ppm | ASTM D5185m | | **3** | --- | --- |
| Magnesium | ppm | ASTM D5185m | | **86** | --- | --- |
| Calcium | ppm | ASTM D5185m | | **2906** | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | **913** | --- | --- |
| Zinc | ppm | ASTM D5185m | | **1196** | --- | --- |
| Sulfur | ppm | ASTM D5185m | | **3513** | --- | --- |

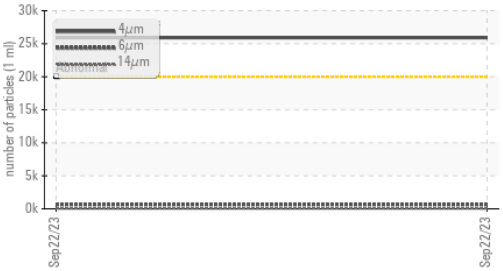
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >31 | **5** | --- | --- |
| Sodium | ppm | ASTM D5185m | >21 | **2** | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | **5** | --- | --- |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >20000 | ▲ **25917** | --- | --- |
| Particles >6µm | | ASTM D7647 | >5000 | **649** | --- | --- |
| Particles >14µm | | ASTM D7647 | >640 | **49** | --- | --- |
| Particles >21µm | | ASTM D7647 | >160 | **15** | --- | --- |
| Particles >38µm | | ASTM D7647 | >40 | **1** | --- | --- |
| Particles >71µm | | ASTM D7647 | >10 | **0** | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >21/19/16 | ▲ **22/17/13** | --- | --- |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | **1.42** | --- | --- |

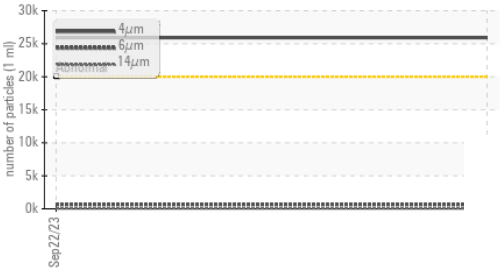
# OIL ANALYSIS REPORT

Particle Trend

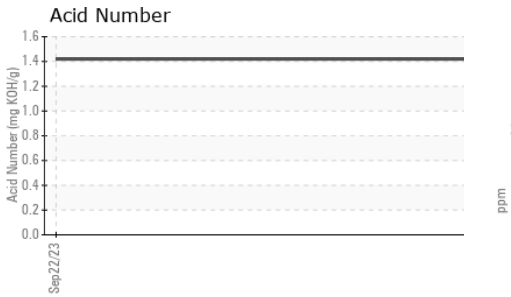



PQ

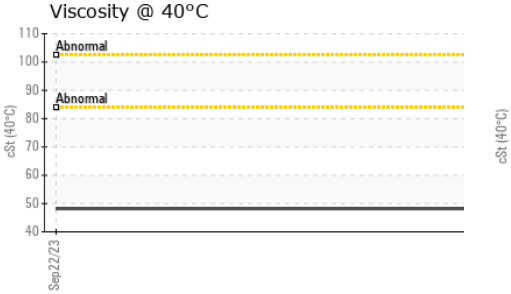

Particle Trend




Acid Number

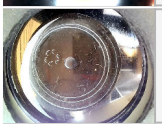



Viscosity @ 40°C



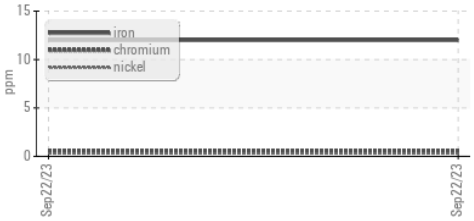

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | --- | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | --- | --- |
| Silt | 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 | | **48.2** | --- | --- |

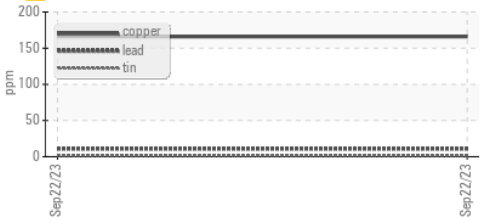
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | *no image* | *no image* |
| Bottom | | |  | *no image* | *no image* |

## GRAPHS

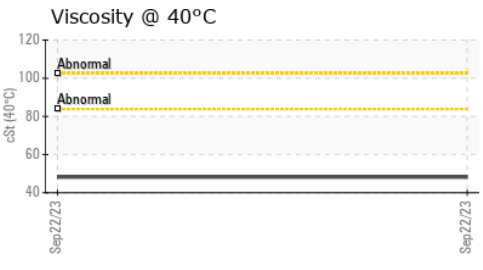
Ferrous Alloys



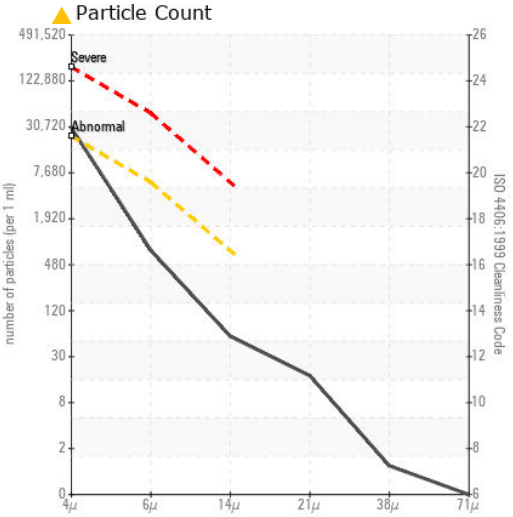

Non-ferrous Metals



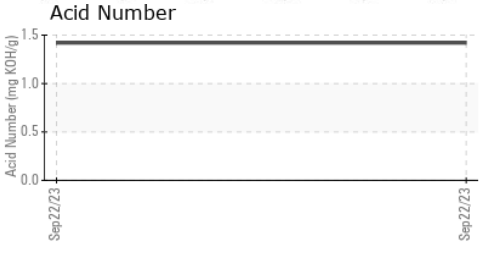

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : JR0151022 **Received** : 26 Sep 2023
**Lab Number** : 05961175 **Diagnosed** : 27 Sep 2023
**Unique Number** : 10662388 **Diagnostician** : Don Baldridge
**Test Package** : CONST ( Additional Tests: PQ, PrtCount )

*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)*

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