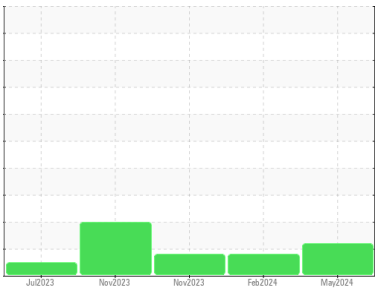
# OIL ANALYSIS REPORT

Sample Rating Trend




ISO

Machine Id
## JOHN DEERE 8250R 8250R UNIT 4 (S/N 187038)
Component
**Hydraulic System**
Fluid
**TDH FLUID SAE 75W80 (--- GAL)**

## DIAGNOSIS

**Recommendation**
No corrective action is recommended at this time. Resample at the next service interval to monitor.

**Wear**
All component wear rates are normal.

**Contamination**
There is a high amount of silt (particulates < 6 microns in size) present 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 | | **PE0003805** | PE0003793 | PE0002514 |
| Sample Date | | Client Info | | **28 May 2024** | 08 Feb 2024 | 29 Nov 2023 |
| Machine Age | hrs | Client Info | | **3502** | 3276 | 3123 |
| Oil Age | hrs | Client Info | | **3276** | 3123 | 3112 |
| Oil Changed | | Client Info | | **N/A** | N/A | N/A |
| Sample Status | | | | **ABNORMAL** | ABNORMAL | ATTENTION |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Water | | WC Method | >0.1 | **NEG** | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| PQ | | ASTM D8184 | | **19** | 11 | 15 |
| Iron | ppm | ASTM D5185m | >20 | **15** | 12 | 11 |
| Chromium | ppm | ASTM D5185m | >10 | **0** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >10 | **0** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | **<1** | <1 | <1 |
| Lead | ppm | ASTM D5185m | >10 | **2** | <1 | 0 |
| Copper | ppm | ASTM D5185m | >75 | **8** | 7 | 6 |
| Tin | ppm | ASTM D5185m | >10 | **0** | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **0** | 0 | <1 |

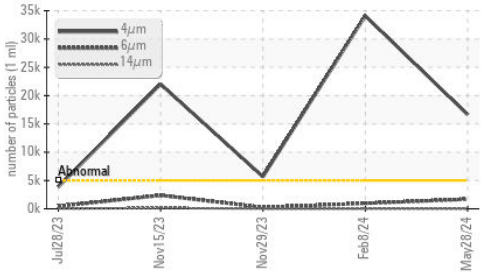
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 10 | **5** | 4 | 5 |
| Barium | ppm | ASTM D5185m | 10 | **<1** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 10 | **2** | <1 | <1 |
| Manganese | ppm | ASTM D5185m | | **<1** | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 100 | **70** | 70 | 68 |
| Calcium | ppm | ASTM D5185m | 3500 | **2991** | 2922 | 2924 |
| Phosphorus | ppm | ASTM D5185m | 1150 | **1045** | 1006 | 986 |
| Zinc | ppm | ASTM D5185m | 1150 | **1233** | 1235 | 1194 |
| Sulfur | ppm | ASTM D5185m | 5000 | **4049** | 3520 | 3289 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >20 | **5** | 4 | 4 |
| Sodium | ppm | ASTM D5185m | | **2** | 1 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | **2** | <1 | <1 |

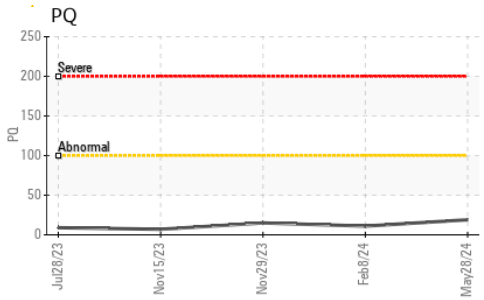
| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >5000 | ▲ **16651** | ▲ 34088 | ● 5675 |
| Particles >6µm | | ASTM D7647 | >1300 | ● **1697** | 961 | 256 |
| Particles >14µm | | ASTM D7647 | >160 | **18** | 22 | 14 |
| Particles >21µm | | ASTM D7647 | >40 | **4** | 5 | 5 |
| Particles >38µm | | ASTM D7647 | >10 | **0** | 0 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | **0** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >19/17/14 | ▲ **21/18/11** | ▲ 22/17/12 | ● 20/15/11 |

# OIL ANALYSIS REPORT

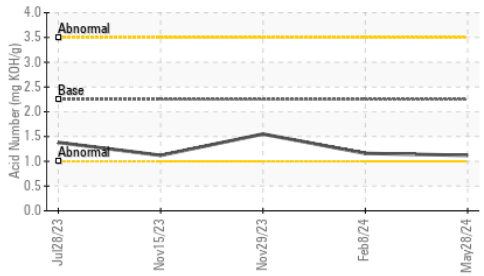
Particle Trend



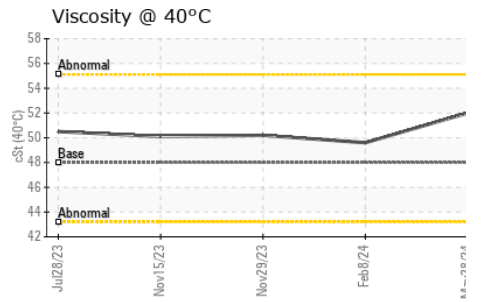

PQ



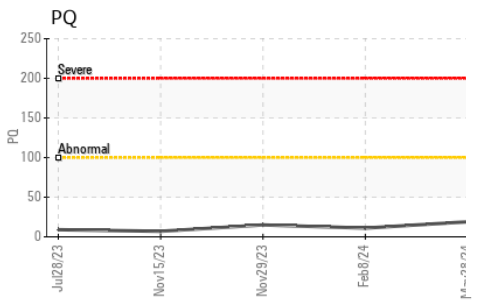

Acid Number




Viscosity @ 40°C




PQ




| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 2.25 | **1.12** | 1.16 | 1.55 |

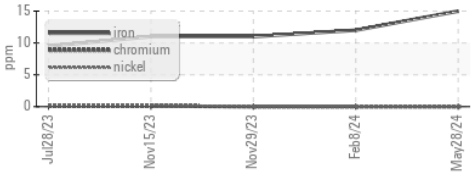
| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
|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

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 48 | **52.0** | 49.6 | 50.2 |

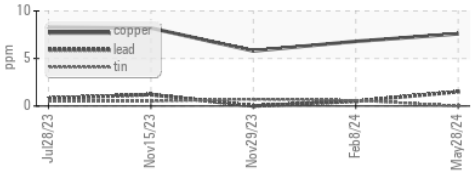
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

## GRAPHS

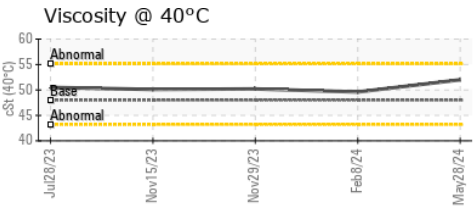
Ferrous Alloys



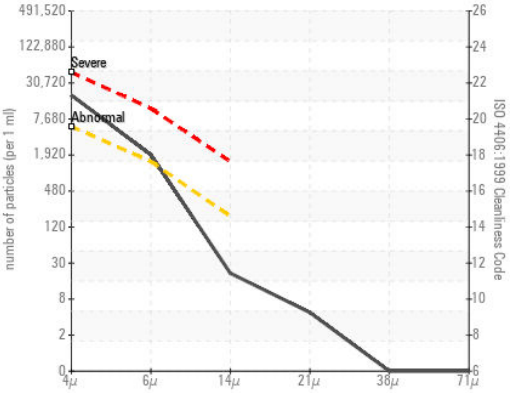

Non-ferrous Metals



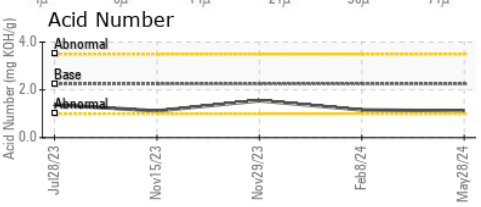

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : PE0003805
**Lab Number** : 06196551
**Unique Number** : 11058674
**Test Package** : CONST ( Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN )

**Received** : 31 May 2024
**Tested** : 03 Jun 2024
**Diagnosed** : 03 Jun 2024 - Don Baldridge

*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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Submitted By: ROCHELLE MENDOZA