



# OIL ANALYSIS REPORT

|                 |        |
|-----------------|--------|
| WEAR            | NORMAL |
| CONTAMINATION   | SEVERE |
| FLUID CONDITION | NORMAL |

Area

## SULLIVAN FARMS

Machine Id

### JOHN DEERE 8270R 8270R JOHN DEERE TRACTOR (S/N 1RW8270RKFP101260)

Component

### Hydraulic System

Fluid

### JOHN DEERE HY-GARD HYD/TRANS (--- GAL)

## RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

| Test           | UOM | Method      | Limit/Abn | Current     | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|----------|----------|
| Sample Number  |     | Client Info |           | WC0910400   | ---      | ---      |
| Sample Date    |     | Client Info |           | 21 Feb 2024 | ---      | ---      |
| Machine Age    | hrs | Client Info |           | 3647        | ---      | ---      |
| Oil Age        | hrs | Client Info |           | 3647        | ---      | ---      |
| Filter Age     | hrs | Client Info |           | 0           | ---      | ---      |
| Oil Changed    |     | Client Info |           | Not Changd  | ---      | ---      |
| Filter Changed |     | Client Info |           | N/A         | ---      | ---      |
| Sample Status  |     |             |           | SEVERE      | ---      | ---      |

## WEAR

All component wear rates are normal.

| PQ           | UOM    | Method      | Limit/Abn | Current | History1 | History2 |
|--------------|--------|-------------|-----------|---------|----------|----------|
| Iron         | ppm    | ASTM D5185m | >20       | 14      | ---      | ---      |
| Chromium     | ppm    | ASTM D5185m | >10       | 0       | ---      | ---      |
| Nickel       | ppm    | ASTM D5185m | >10       | 0       | ---      | ---      |
| Titanium     | ppm    | ASTM D5185m |           | 0       | ---      | ---      |
| Silver       | ppm    | ASTM D5185m |           | 0       | ---      | ---      |
| Aluminum     | ppm    | ASTM D5185m | >10       | 1       | ---      | ---      |
| Lead         | ppm    | ASTM D5185m | >10       | 0       | ---      | ---      |
| Copper       | ppm    | ASTM D5185m | >75       | 2       | ---      | ---      |
| Tin          | ppm    | ASTM D5185m | >10       | 0       | ---      | ---      |
| Vanadium     | ppm    | ASTM D5185m |           | 0       | ---      | ---      |
| White Metal  | scalar | *Visual     | NONE      | NONE    | ---      | ---      |
| Yellow Metal | scalar | *Visual     | NONE      | NONE    | ---      | ---      |

## CONTAMINATION

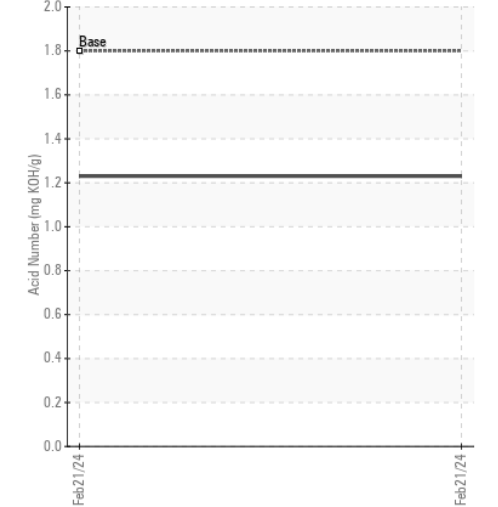
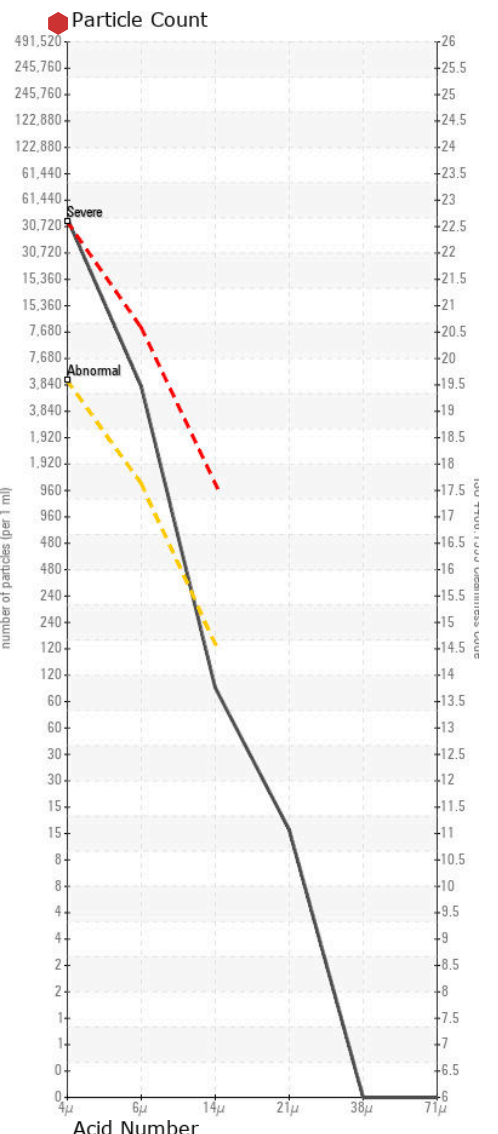
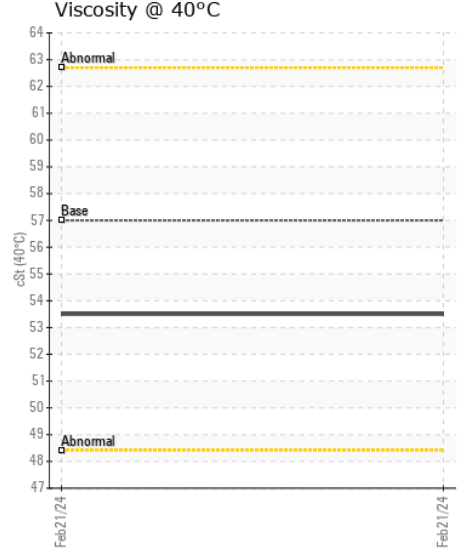
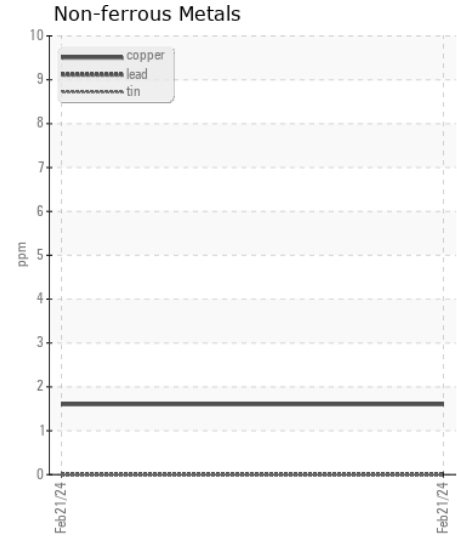
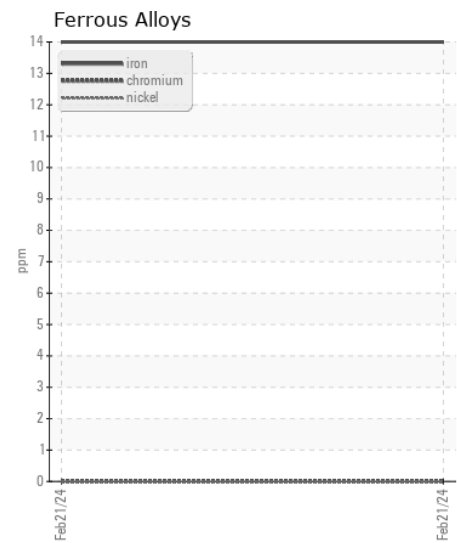
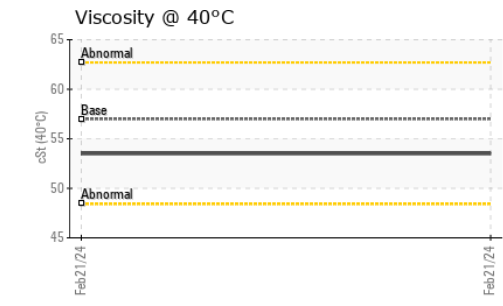
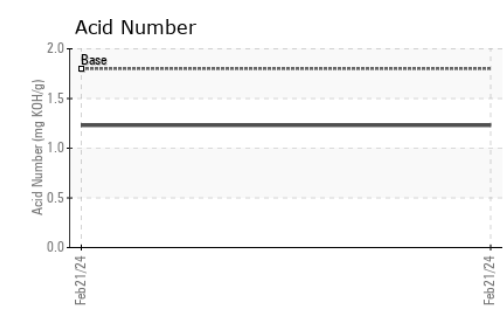
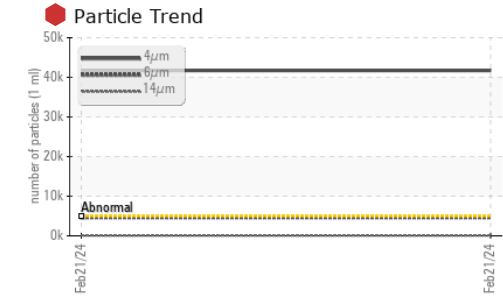
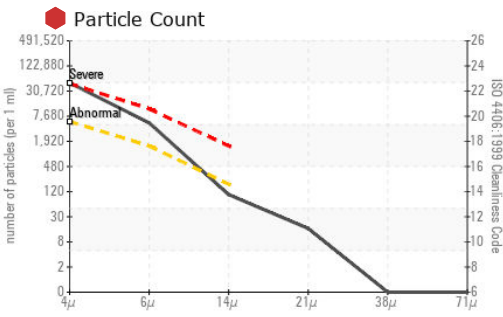
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

|                  |        |              |           |          |     |     |
|------------------|--------|--------------|-----------|----------|-----|-----|
| Silicon          | ppm    | ASTM D5185m  | >20       | 6        | --- | --- |
| Potassium        | ppm    | ASTM D5185m  | >20       | 0        | --- | --- |
| Water            |        | WC Method    | >0.1      | NEG      | --- | --- |
| Particles >4µm   |        | ASTM D7647   | >5000     | 41710    | --- | --- |
| Particles >6µm   |        | ASTM D7647   | >1300     | 4637     | --- | --- |
| Particles >14µm  |        | ASTM D7647   | >160      | 90       | --- | --- |
| Particles >21µm  |        | ASTM D7647   | >40       | 14       | --- | --- |
| Particles >38µm  |        | ASTM D7647   | >10       | 0        | --- | --- |
| Particles >71µm  |        | ASTM D7647   | >3        | 0        | --- | --- |
| Oil Cleanliness  |        | ISO 4406 (c) | >19/17/14 | 23/19/14 | --- | --- |
| 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 oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

|                  |          |             |      |      |     |     |
|------------------|----------|-------------|------|------|-----|-----|
| Sodium           | ppm      | ASTM D5185m |      | <1   | --- | --- |
| Boron            | ppm      | ASTM D5185m | 6    | 1    | --- | --- |
| Barium           | ppm      | ASTM D5185m | 0    | <1   | --- | --- |
| Molybdenum       | ppm      | ASTM D5185m | 0    | 0    | --- | --- |
| Manganese        | ppm      | ASTM D5185m |      | <1   | --- | --- |
| Magnesium        | ppm      | ASTM D5185m | 145  | 96   | --- | --- |
| Calcium          | ppm      | ASTM D5185m | 3570 | 3171 | --- | --- |
| Phosphorus       | ppm      | ASTM D5185m | 1290 | 969  | --- | --- |
| Zinc             | ppm      | ASTM D5185m | 1640 | 1159 | --- | --- |
| Sulfur           | ppm      | ASTM D5185m |      | 3124 | --- | --- |
| Acid Number (AN) | mg KOH/g | ASTM D8045  | 1.8  | 1.23 | --- | --- |
| Visc @ 40°C      | cSt      | ASTM D445   | 57.0 | 53.5 | --- | --- |



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0910400 **Received** : 23 Feb 2024  
**Lab Number** : 06099094 **Tested** : 26 Feb 2024  
**Unique Number** : 10897324 **Diagnosed** : 26 Feb 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: PQ )

**QUALITY EQUIPMENT**  
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 beatmon@qualityequip.com  
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 F:

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)