



OIL ANALYSIS REPORT

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



Area
Store 3 - Norton [141239]
Machine Id
JOHN DEERE 350G 1FF350GXAKF814122
Component
Hydraulic System
Fluid
HITACHI HYDRAULIC SUPER EX 46HN (77 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | LEC0040246 | LEC0041049 | LEC0036934 |
| Sample Date | | Client Info | | 21 Jul 2023 | 29 Jun 2023 | 07 Feb 2023 |
| Machine Age | hrs | Client Info | | 1608 | 1519 | 1170 |
| Oil Age | hrs | Client Info | | 438 | 349 | 1170 |
| Filter Age | hrs | Client Info | | 438 | 349 | 241 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | Changed |
| Filter Changed | | Client Info | | Not Changd | Not Changd | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| PQ | | ASTM D8184 | >50 | 11 | 12 | 10 |
| Iron | ppm | ASTM D5185m | >32 | 4 | 4 | 3 |
| Chromium | ppm | ASTM D5185m | >9 | <1 | <1 | 0 |
| Nickel | ppm | ASTM D5185m | >5 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >9 | <1 | 0 | <1 |
| Lead | ppm | ASTM D5185m | >28 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | 2 | 2 | <1 |
| Tin | ppm | ASTM D5185m | >5 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

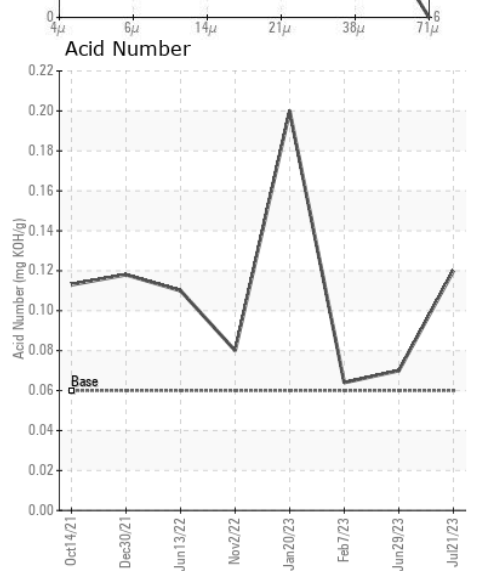
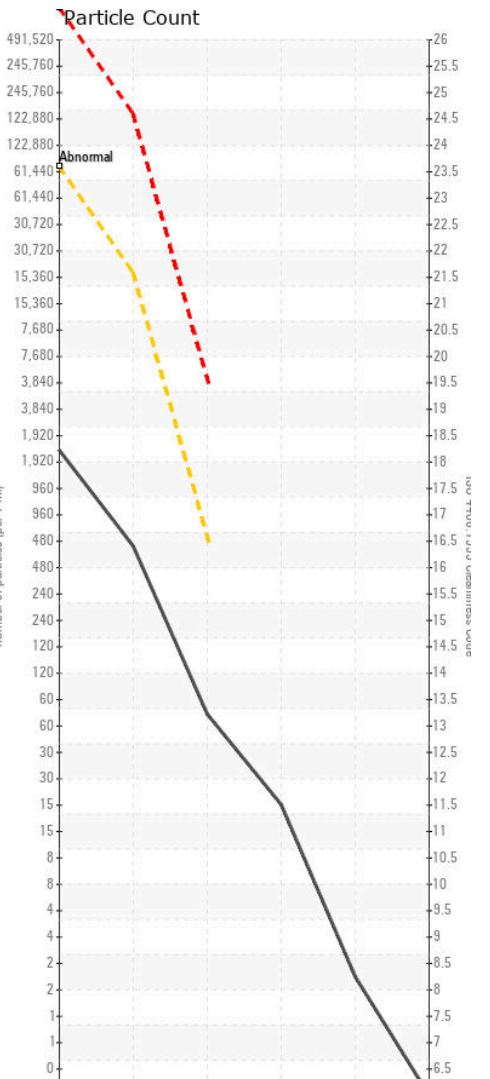
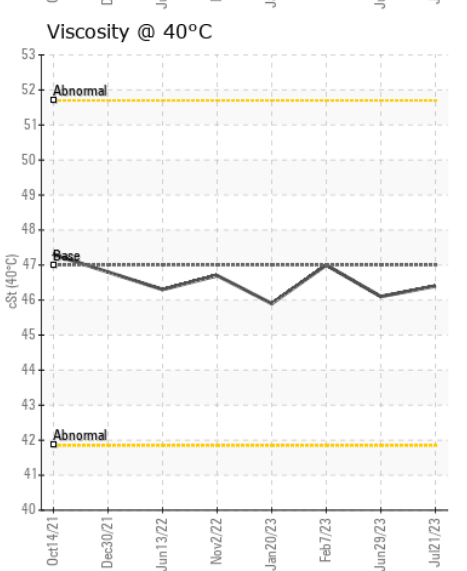
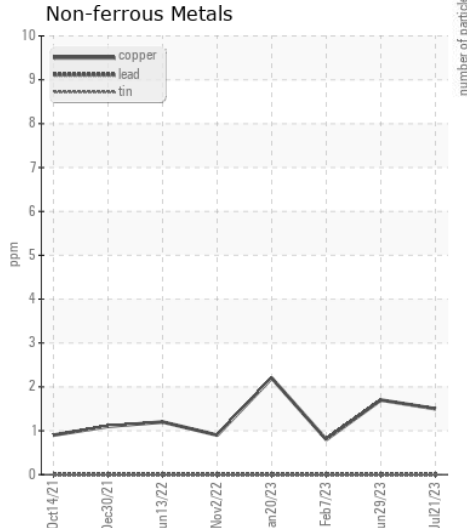
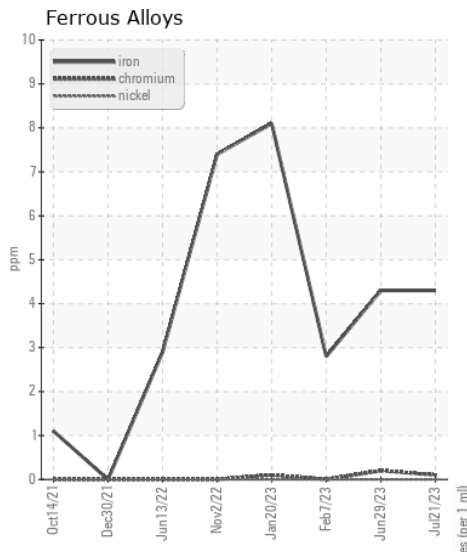
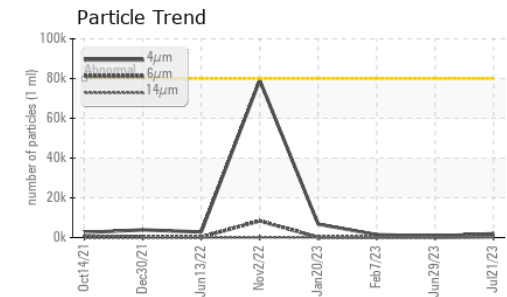
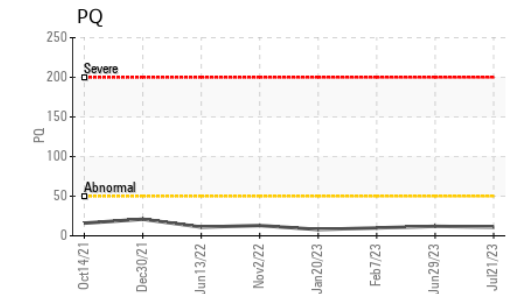
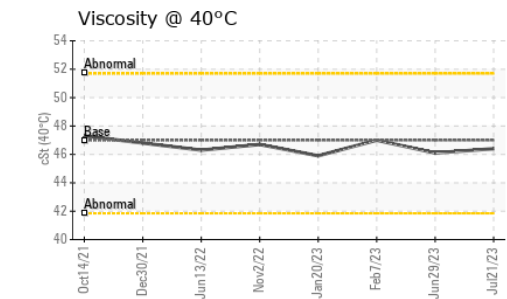
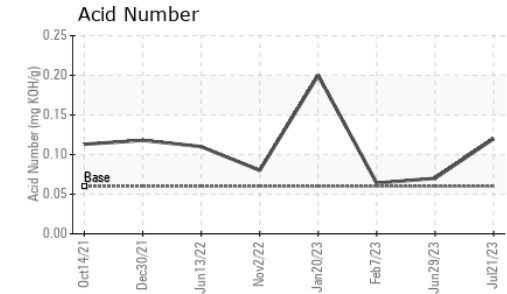
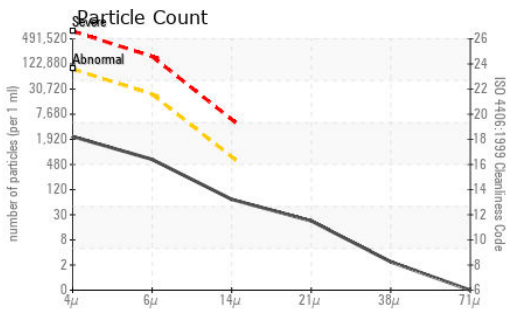
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|--------|--------------|-----------|-----------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >11 | 2 | 2 | 2 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | <1 | 0 |
| Water | | WC Method | >0.075 | NEG | NEG | NEG |
| Particles >4µm | | ASTM D7647 | >80000 | 1960 | 753 | 1439 |
| Particles >6µm | | ASTM D7647 | >20000 | 558 | 125 | 83 |
| Particles >14µm | | ASTM D7647 | >640 | 62 | 13 | 5 |
| Particles >21µm | | ASTM D7647 | >160 | 19 | 5 | 1 |
| Particles >38µm | | ASTM D7647 | >40 | 2 | 1 | 0 |
| Particles >71µm | | ASTM D7647 | >10 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >23/21/16 | 18/16/13 | 17/14/11 | 18/14/10 |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | LIGHT | 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 | >0.075 | NEG | NEG | 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 | >21 | 0 | <1 | <1 |
| Boron | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | | 2 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | <1 | <1 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | | 1 | 0 | 0 |
| Calcium | ppm | ASTM D5185m | | 107 | 121 | 109 |
| Phosphorus | ppm | ASTM D5185m | 827 | 588 | 644 | 586 |
| Zinc | ppm | ASTM D5185m | 0 | 60 | 57 | 57 |
| Sulfur | ppm | ASTM D5185m | 13 | 192 | 261 | 213 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.06 | 0.12 | 0.07 | 0.064 |
| Visc @ 40°C | cSt | ASTM D445 | 47 | 46.4 | 46.1 | 47.0 |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0040246 **Received** : 25 Jul 2023
Lab Number : 05906510 **Tested** : 26 Jul 2023
Unique Number : 10573162 **Diagnosed** : 27 Jul 2023 - Don Baldridge
Test Package : CONST (Additional Tests: PQ)

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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)