



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



Machine Id
JOHN DEERE 410E 1DW410EBKNF715204
Component
Hydraulic System
Fluid
JOHN DEERE HYDRAU (50 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | JR0209003 | JR0201116 | JR0193645 |
| Sample Date | | Client Info | | 24 Apr 2024 | 09 Feb 2024 | 20 Nov 2023 |
| Machine Age | hrs | Client Info | | 4792 | 4258 | 3588 |
| Oil Age | hrs | Client Info | | 534 | 4258 | 3588 |
| Filter Age | hrs | Client Info | | 0 | 4258 | 0 |
| Oil Changed | | Client Info | | Not Chngd | Changed | Not Chngd |
| Filter Changed | | Client Info | | N/A | Changed | N/A |
| Sample Status | | | | NORMAL | ABNORMAL | ABNORMAL |

WEAR

All component wear rates are normal.

| PQ | UOM | Method | Limit/Abn | Current | History1 | History2 |
|--------------|--------|-------------|-----------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >71 | 4 | 3 | 4 |
| Chromium | ppm | ASTM D5185m | >11 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >6 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >11 | <1 | <1 | 2 |
| Lead | ppm | ASTM D5185m | >13 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >21 | <1 | <1 | 2 |
| 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

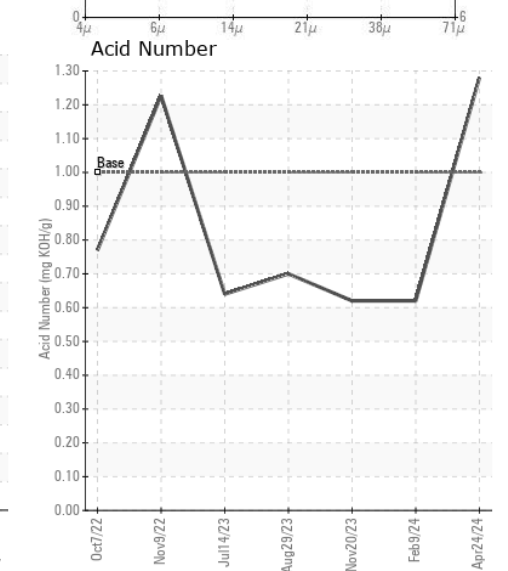
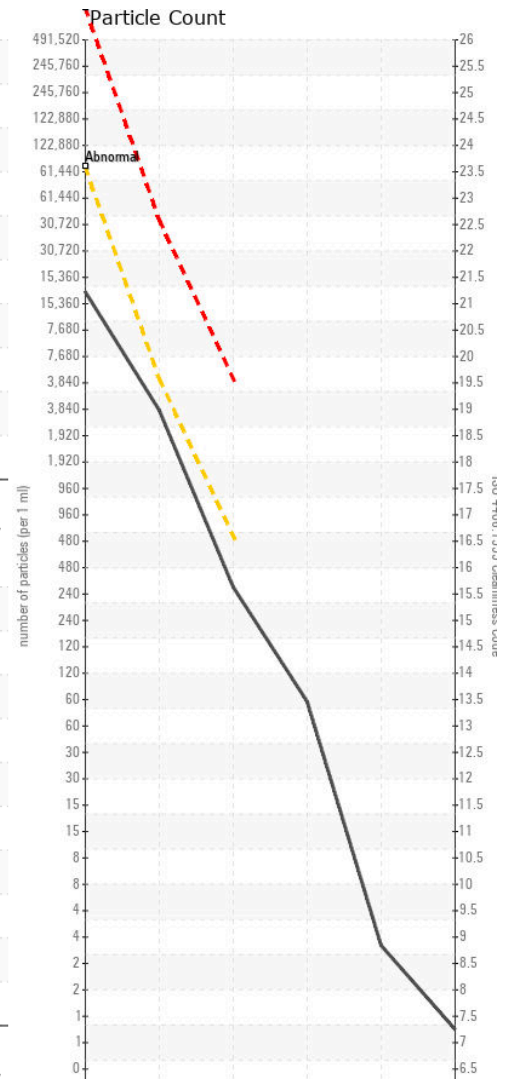
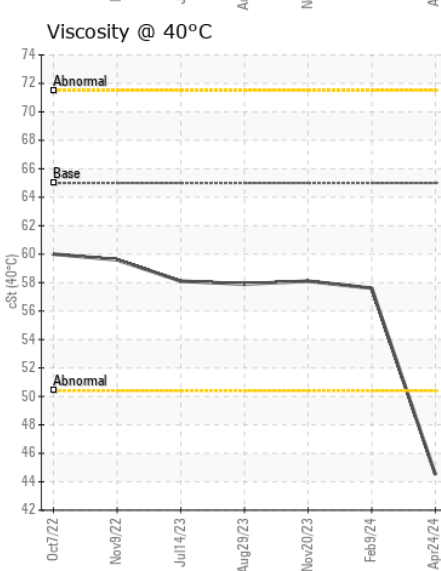
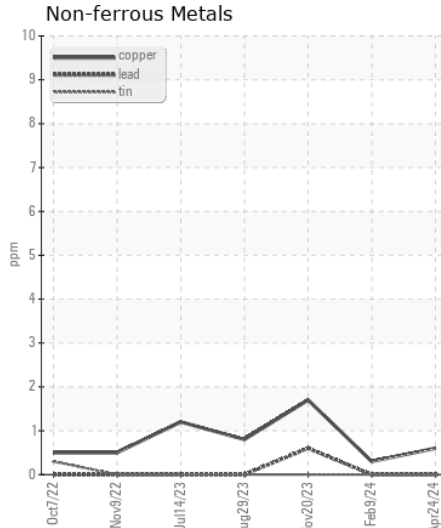
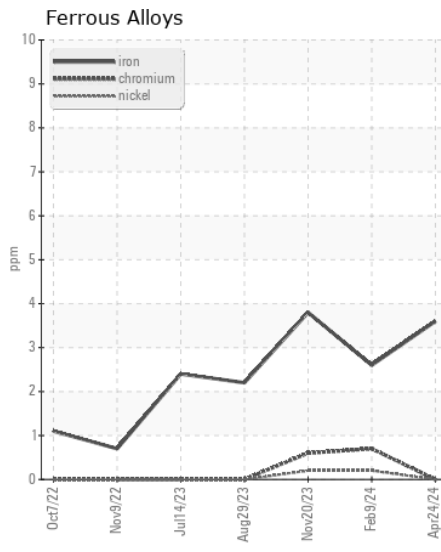
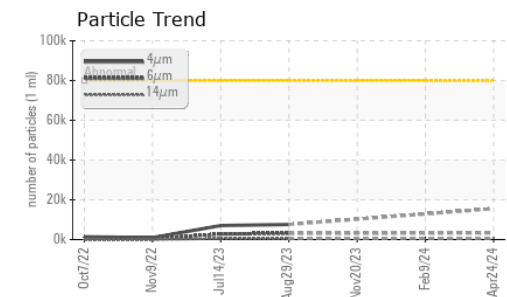
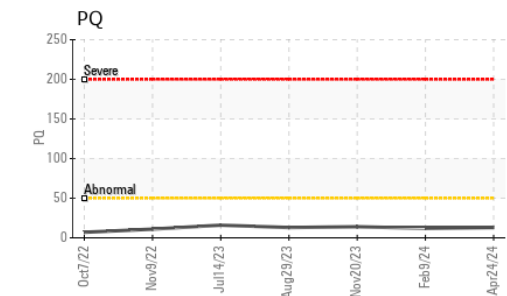
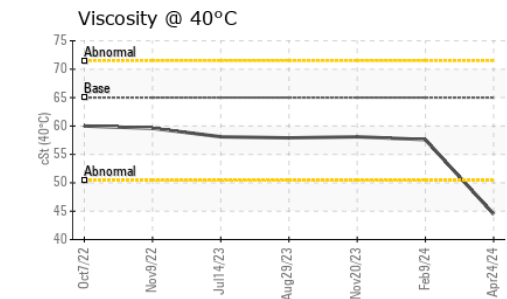
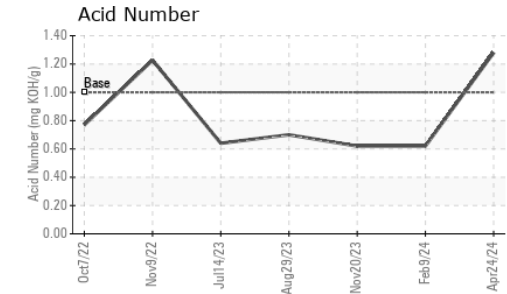
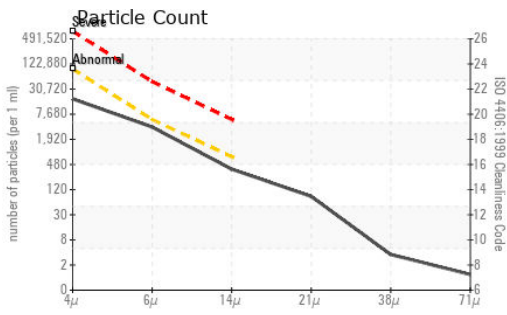
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

| | | | | | | |
|------------------|--------|--------------|-----------|-----------------|---------|---------|
| Silicon | ppm | ASTM D5185m | >24 | 2 | 2 | 1 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 1 | 3 |
| Water | | WC Method | >0.075 | NEG | NEG | NEG |
| Particles >4µm | | ASTM D7647 | >80000 | 15572 | --- | --- |
| Particles >6µm | | ASTM D7647 | >5000 | 3306 | --- | --- |
| Particles >14µm | | ASTM D7647 | >640 | 327 | --- | --- |
| Particles >21µm | | ASTM D7647 | >160 | 73 | --- | --- |
| Particles >38µm | | ASTM D7647 | >40 | 3 | --- | --- |
| Particles >71µm | | ASTM D7647 | >10 | 1 | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >23/19/16 | 21/19/16 | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | ▲ MODER | ▲ MODER |
| 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

Confirm oil type. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | >21 | <1 | 2 | 0 |
| Boron | ppm | ASTM D5185m | | 8 | 0 | 0 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 9 |
| Molybdenum | ppm | ASTM D5185m | | 7 | 0 | <1 |
| Manganese | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | | 122 | <1 | 2 |
| Calcium | ppm | ASTM D5185m | 87 | 2158 | 100 | 97 |
| Phosphorus | ppm | ASTM D5185m | 727 | 819 | 686 | 663 |
| Zinc | ppm | ASTM D5185m | 900 | 907 | 913 | 872 |
| Sulfur | ppm | ASTM D5185m | 1500 | 3074 | 1782 | 1850 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.0 | 1.28 | 0.62 | 0.62 |
| Visc @ 40°C | cSt | ASTM D445 | 65 | 44.5 | 57.6 | 58.1 |



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0209003 **Received** : 26 Apr 2024
Lab Number : 06161352 **Tested** : 29 Apr 2024
Unique Number : 10996775 **Diagnosed** : 29 Apr 2024 - Don Baldrige
Test Package : CONST (Additional Tests: PQ)

JRE - NEW BERN
 3816 MARTIN LUTHER KING BLVD
 NEW BERN, NC
 US 28562
 Contact: NEW BERN SHOP
 nick.etheridge@jamesriverequipment.com;canastasio@wearcheckusa.com

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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