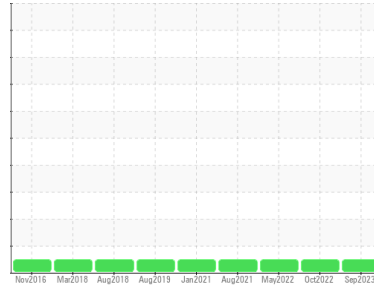


OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL


Area
[W46510]
Machine Id
JOHN DEERE 700K 1T0700KXTGF295063
Component
Hydraulic System
Fluid
JOHN DEERE HYDRAU (--- GAL)


DIAGNOSIS
Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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

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 | | JR0165793 | JR0148508 | JR0123894 |
| Sample Date | Client Info | | 27 Sep 2023 | 20 Oct 2022 | 16 May 2022 |
| Machine Age | hrs | Client Info | 4957 | 4484 | 3991 |
| Oil Age | hrs | Client Info | 0 | 0 | 2000 |
| Oil Changed | Client Info | | Not Chngd | Not Chngd | Changed |
| Sample Status | | | NORMAL | NORMAL | NORMAL |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|------------|-------------|-----------|--------------|----------|
| PQ | ASTM D8184 | >50 | 21 | 12 | 19 |
| Iron | ppm | ASTM D5185m | >23 | 9 | 4 |
| Chromium | ppm | ASTM D5185m | >9 | 1 | <1 |
| Nickel | ppm | ASTM D5185m | >5 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | <1 |
| Silver | ppm | ASTM D5185m | | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >9 | <1 | 3 |
| Lead | ppm | ASTM D5185m | >28 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >51 | 9 | 7 |
| Tin | ppm | ASTM D5185m | >5 | 0 | 0 |
| Antimony | ppm | ASTM D5185m | | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-------------|---------|-------------|----------|
| Boron | ppm | ASTM D5185m | | 4 | 4 |
| Barium | ppm | ASTM D5185m | | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 5 | 5 |
| Manganese | ppm | ASTM D5185m | | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | | 19 | 17 |
| Calcium | ppm | ASTM D5185m | 87 | 251 | 254 |
| Phosphorus | ppm | ASTM D5185m | 727 | 621 | 642 |
| Zinc | ppm | ASTM D5185m | 900 | 813 | 800 |
| Sulfur | ppm | ASTM D5185m | 1500 | 1722 | 2004 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|-------------|---------|--------------|----------|
| Silicon | ppm | ASTM D5185m | >31 | 9 | 6 |
| Sodium | ppm | ASTM D5185m | >21 | <1 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 0 |

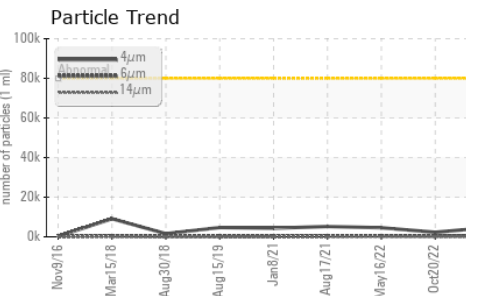
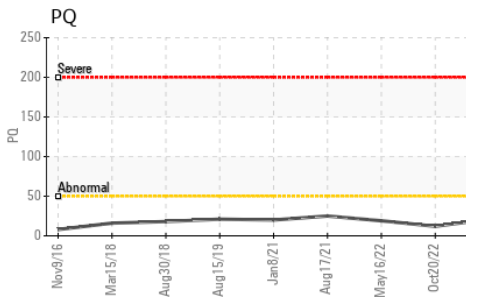
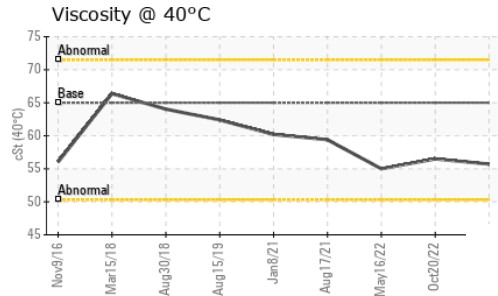
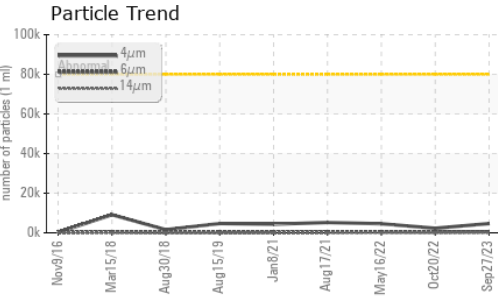
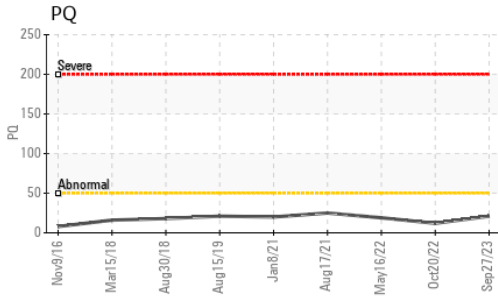
FLUID CLEANLINESS

| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm | ASTM D7647 | >80000 | 4665 | 2311 | 4571 |
| Particles >6µm | ASTM D7647 | >20000 | 589 | 422 | 488 |
| Particles >14µm | ASTM D7647 | >640 | 25 | 34 | 44 |
| Particles >21µm | ASTM D7647 | >160 | 6 | 6 | 8 |
| Particles >38µm | ASTM D7647 | >40 | 0 | 0 | 0 |
| Particles >71µm | ASTM D7647 | >10 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >23/21/16 | 19/16/12 | 18/16/12 | 19/16/13 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|------------|---------|-------------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.0 | 0.70 | 0.74 |

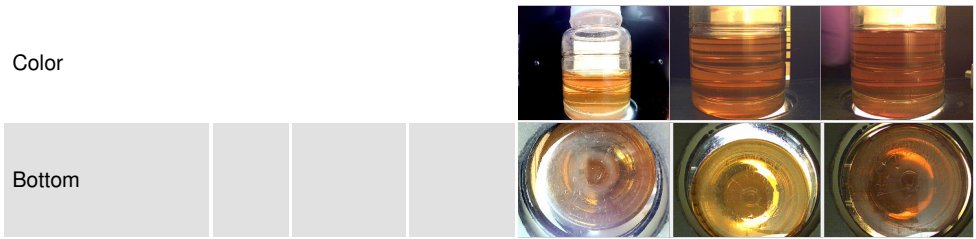
OIL ANALYSIS REPORT



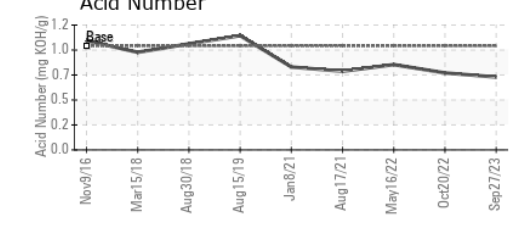
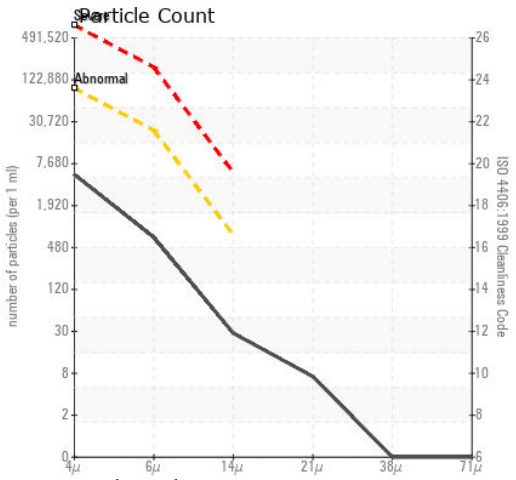
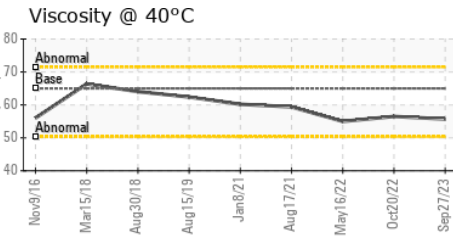
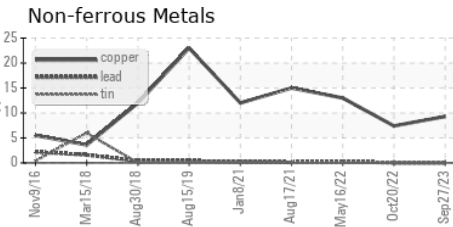
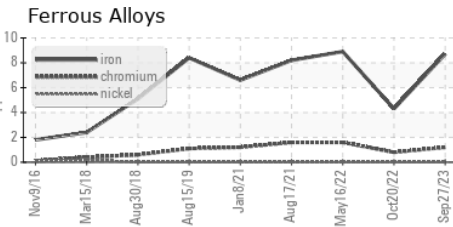
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.075 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 65 | 55.7 | 56.5 | 55.0 |

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : JR0165793

Lab Number : 05965269

Unique Number : 10671820

Test Package : CONST (Additional Tests: PQ)

JRE - ASHLAND
11047 LEADBETTER RD
ASHLAND, VA
US 23005
Contact: DAVID ZIEG
dzieg@jamesriverequipment.com
T: (804)798-6001
F: (804)798-0292

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)