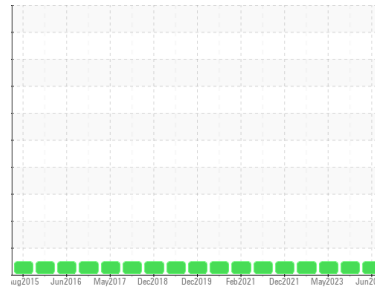


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
HITACHI 470LC-5 HCMJAA70C00030815
Component
Left Swing Drive
Fluid
JOHN DEERE GL-5 80W90 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | | JR0067652 | JR0179625 | JR0147667 |
| Sample Date | Client Info | | | 20 Jun 2024 | 27 Nov 2023 | 02 May 2023 |
| Machine Age | hrs | Client Info | | 17963 | 17018 | 15979 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | Client Info | | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water | WC Method | | >0.2 | NEG | NEG | NEG |

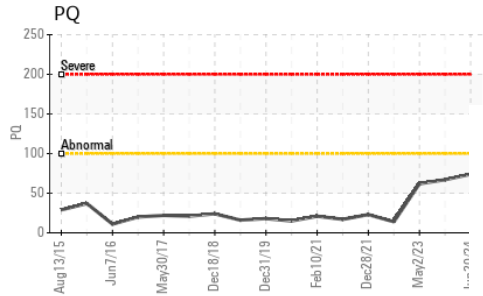
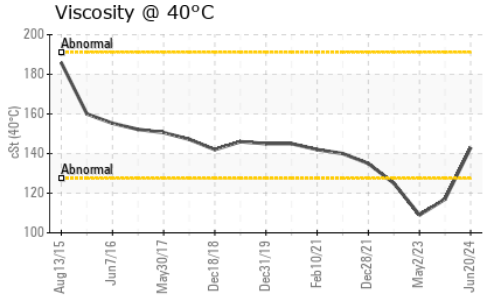
| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| PQ | | ASTM D8184 | | 74 | 67 | 62 |
| Iron | ppm | ASTM D5185m | >400 | 245 | 136 | 137 |
| Chromium | ppm | ASTM D5185m | >10 | 2 | 0 | 1 |
| Nickel | ppm | ASTM D5185m | >10 | <1 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 3 | 0 | <1 |
| Lead | ppm | ASTM D5185m | >50 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >200 | 2 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >10 | <1 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | <1 | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | | 8 | 45 | 182 |
| Barium | ppm | ASTM D5185m | | 1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | <1 | 0 | 1 |
| Manganese | ppm | ASTM D5185m | | 2 | <1 | 1 |
| Magnesium | ppm | ASTM D5185m | | 2 | 3 | 4 |
| Calcium | ppm | ASTM D5185m | | 57 | 233 | 232 |
| Phosphorus | ppm | ASTM D5185m | | 2333 | 552 | 1198 |
| Zinc | ppm | ASTM D5185m | | 41 | 100 | 118 |
| Sulfur | ppm | ASTM D5185m | | 30383 | 16416 | 21878 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >50 | 9 | 4 | 5 |
| Sodium | ppm | ASTM D5185m | | <1 | 0 | 1 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 0 | <1 |

| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------|--------|---------|------------|--------------|----------|----------|
| White Metal | scalar | *Visual | NONE | MODER | NONE | MODER |
| 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 | >0.2 | NEG | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG | NEG |

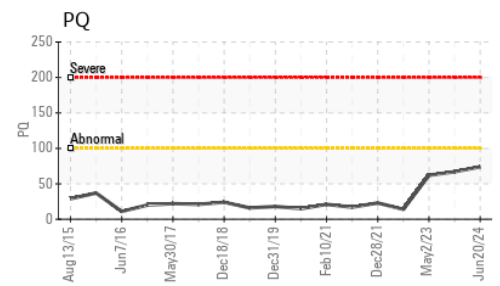
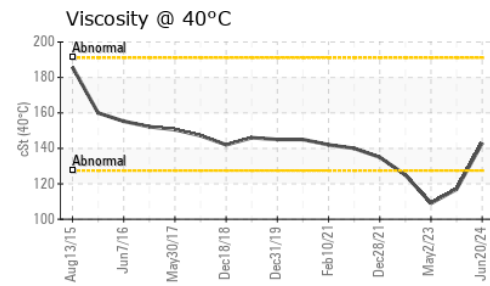
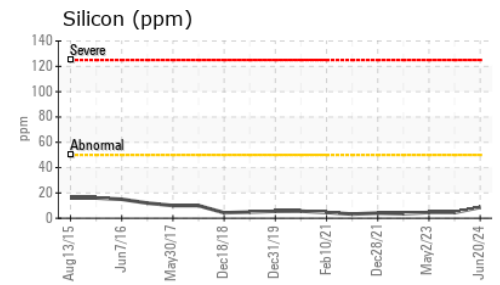
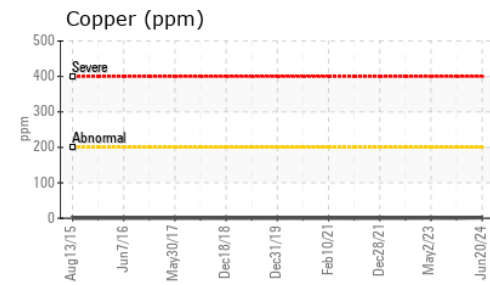
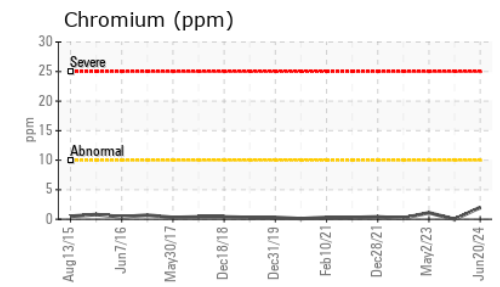
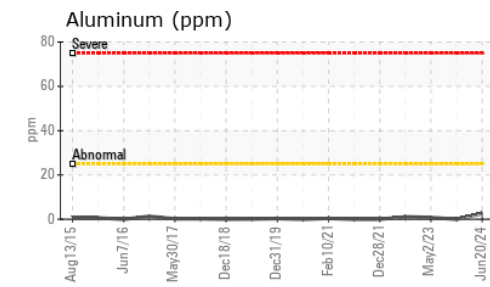
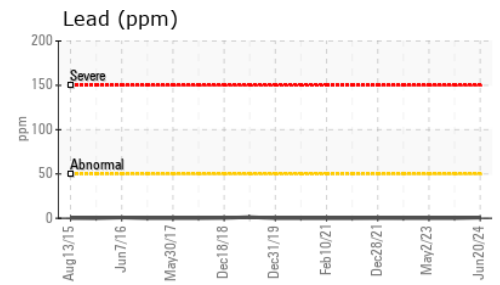
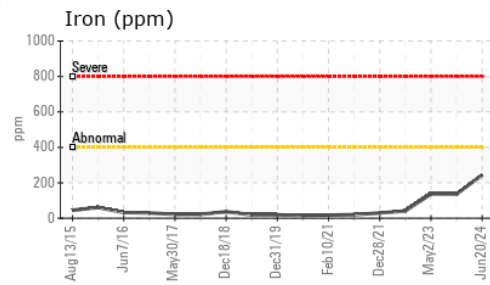
OIL ANALYSIS REPORT



| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 143 | 117 | 109 |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
| Color | | | | no image | no image |
| Bottom | | | | no image | no image |

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0067652 **Received** : 25 Jun 2024
Lab Number : 06219963 **Tested** : 26 Jun 2024
Unique Number : 11098160 **Diagnosed** : 26 Jun 2024 - Sean Felton
Test Package : MOBCE (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)