



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

Machine Id
HITACHI 470LC-6 HCMJAG60T00060492

Component
Left Swing Drive

Fluid
JOHN DEERE GL-5 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | JR0224397 | JR0200509 | JR0148715 |
| Sample Date | | Client Info | | 14 Jul 2024 | 22 Feb 2024 | 28 Nov 2022 |
| Machine Age | hrs | Client Info | | 8033 | 7013 | 5966 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| PQ | | ASTM D8184 | | 19 | 21 | 8 |
| Iron | ppm | ASTM D5185m | >400 | 28 | 55 | 63 |
| Chromium | ppm | ASTM D5185m | >10 | <1 | 0 | <1 |
| Nickel | ppm | ASTM D5185m | >10 | <1 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 3 | 0 | <1 |
| Lead | ppm | ASTM D5185m | >50 | <1 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >200 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >10 | <1 | <1 | 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

There is no indication of any contamination in the oil.

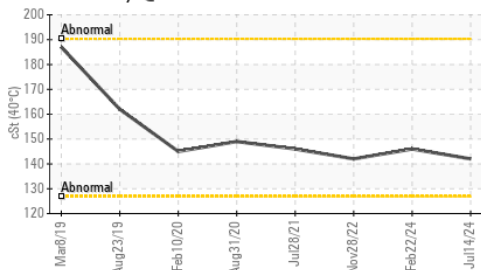
| | | | | | | |
|------------------|--------|-------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >50 | 6 | 4 | 5 |
| Potassium | ppm | ASTM D5185m | >20 | 1 | 0 | 0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| 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 |

FLUID CONDITION

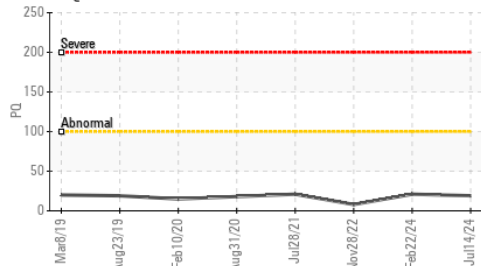
The condition of the oil is acceptable for the time in service.

| | | | | | | |
|-------------|-----|-------------|--|--------------|-------|-------|
| Sodium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Boron | ppm | ASTM D5185m | | 44 | 70 | 145 |
| Barium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 4 | <1 | 2 |
| Calcium | ppm | ASTM D5185m | | 68 | 47 | 16 |
| Phosphorus | ppm | ASTM D5185m | | 1535 | 947 | 957 |
| Zinc | ppm | ASTM D5185m | | 22 | 66 | 8 |
| Sulfur | ppm | ASTM D5185m | | 24398 | 24011 | 25056 |
| Visc @ 40°C | cSt | ASTM D445 | | 142 | 146 | 142 |

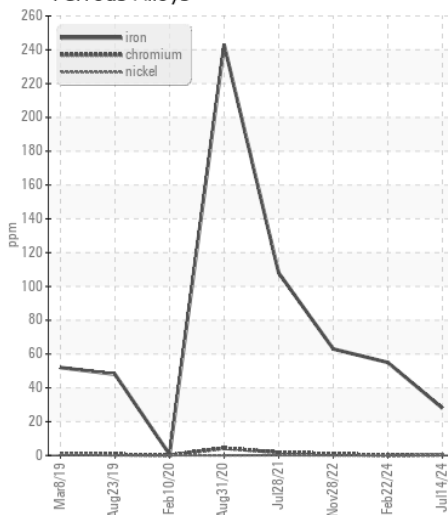
Viscosity @ 40°C



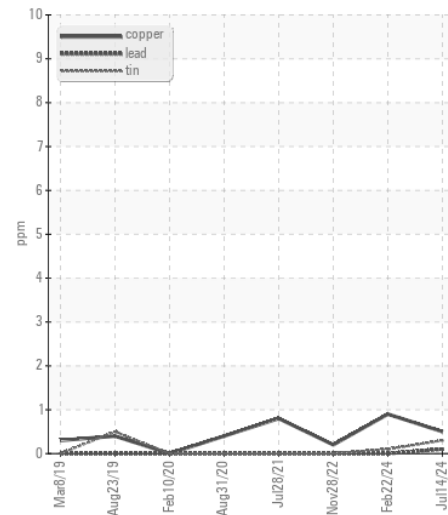
PQ



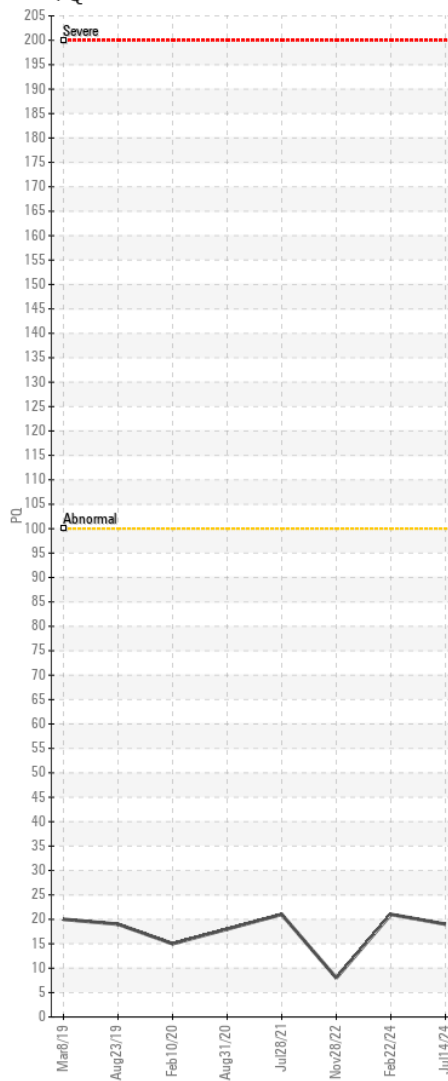
Ferrous Alloys



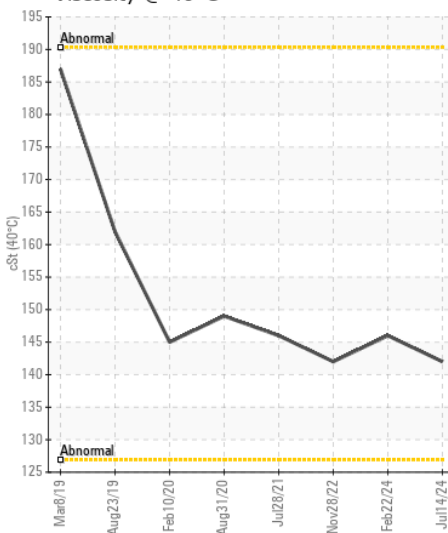
Non-ferrous Metals



PQ



Viscosity @ 40°C



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0224397 **Received** : 17 Jul 2024
Lab Number : 06239376 **Tested** : 18 Jul 2024
Unique Number : 11128210 **Diagnosed** : 19 Jul 2024 - Don Baldrige
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)