



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



Machine Id
JOHN DEERE 300D 1DW300DXLEE661363

Component
Diesel Engine

Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | JR0220464 | JR0177950 | JR0014274 |
| Sample Date | | Client Info | | 14 Jun 2024 | 01 Aug 2023 | 12 Aug 2019 |
| Machine Age | hrs | Client Info | | 5000 | 2425 | 3936 |
| Oil Age | hrs | Client Info | | 1507 | 509 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | N/A |
| Filter Changed | | Client Info | | Changed | Changed | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >51 | 20 | 17 | 15 |
| Chromium | ppm | ASTM D5185m | >11 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >5 | 1 | <1 | 1 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Silver | ppm | ASTM D5185m | >3 | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >31 | 5 | 3 | 6 |
| Lead | ppm | ASTM D5185m | >26 | <1 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >26 | 1 | 0 | <1 |
| Tin | ppm | ASTM D5185m | >4 | <1 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | 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.

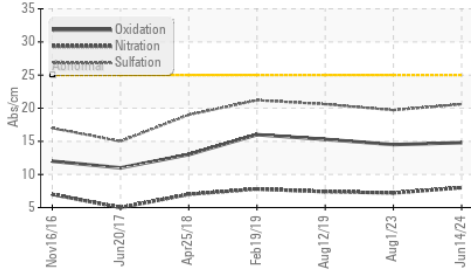
| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >22 | 6 | 7 | 6 |
| Potassium | ppm | ASTM D5185m | >20 | 3 | <1 | 0 |
| Fuel | | WC Method | >2.1 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.21 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.3 | 0.2 | 0.3 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.0 | 7.2 | 7.4 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 20.6 | 19.7 | 20.6 |
| 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 | >0.21 | NEG | NEG | NEG |

FLUID CONDITION

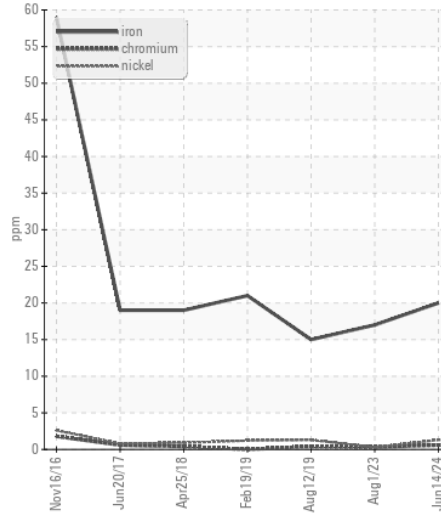
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | >31 | 2 | 2 | 6 |
| Boron | ppm | ASTM D5185m | | 221 | 264 | 201 |
| Barium | ppm | ASTM D5185m | | 2 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 263 | 245 | 220 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 772 | 835 | 797 |
| Calcium | ppm | ASTM D5185m | | 1376 | 1575 | 1483 |
| Phosphorus | ppm | ASTM D5185m | | 826 | 941 | 857 |
| Zinc | ppm | ASTM D5185m | | 1040 | 1119 | 982 |
| Sulfur | ppm | ASTM D5185m | | 2569 | 3737 | 2550 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 14.8 | 14.5 | 15.3 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 13.6 | 8.9 | 9.4 | 9.2 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 13.5 | 13.3 | 13.7 |

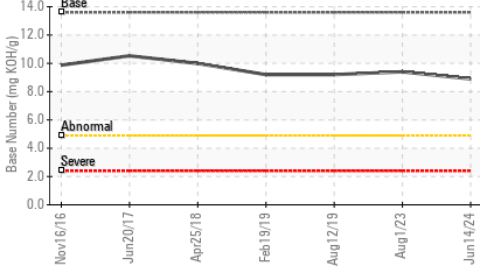
FT-IR (Direct Trend)



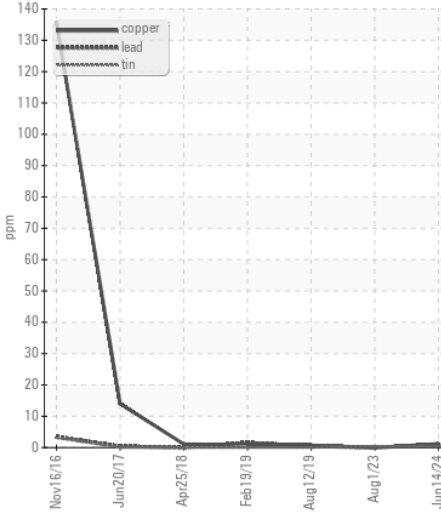
Ferrous Alloys



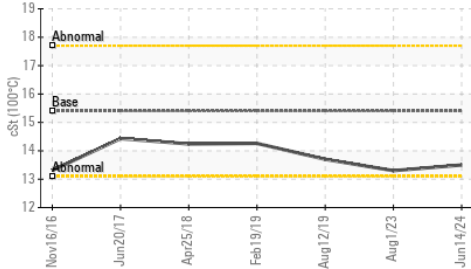
Base Number



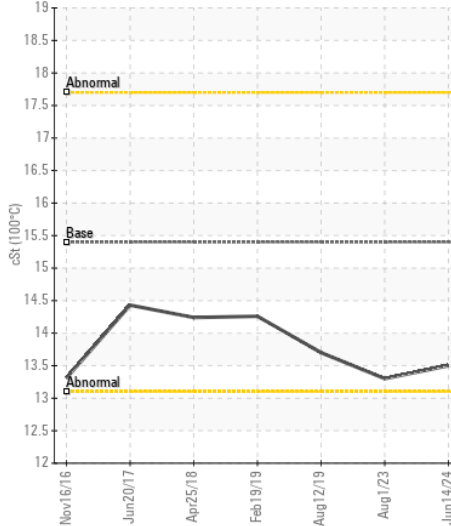
Non-ferrous Metals



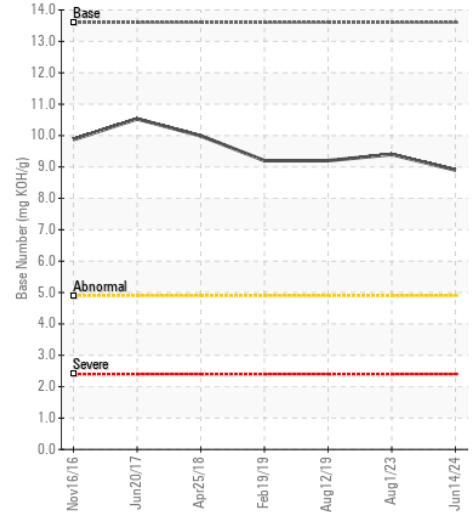
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0220464 **Received** : 02 Jul 2024
Lab Number : 06225818 **Tested** : 03 Jul 2024
Unique Number : 11109311 **Diagnosed** : 03 Jul 2024 - Wes Davis
Test Package : CONST (Additional Tests: TBN)

JRE - CHARLOTTE
 9550 STATESVILLE ROAD
 CHARLOTTE, NC
 US 28269
 Contact: CHARLOTTE SHOP
 myoung@jamesriverequipment.com
 T: (704)597-0211
 F: (704)596-6198

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)