James River Equipment

OIL ANALYSIS REPORT

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

Area
**[16W16193]**
Machine Id
**JOHN DEERE 700K 1T0700KXCKF368150**
Component
**Diesel Engine**
Fluid
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (26 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor. ( Customer Sample Comment: 16W16193 )

## WEAR

All component wear rates are normal.

## CONTAMINATION

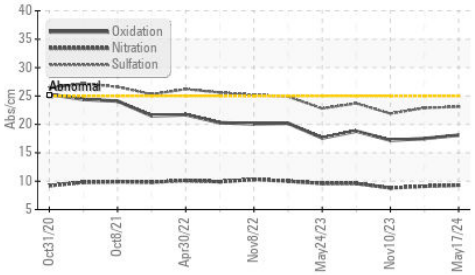
There is no indication of any contamination in the oil.

## FLUID CONDITION

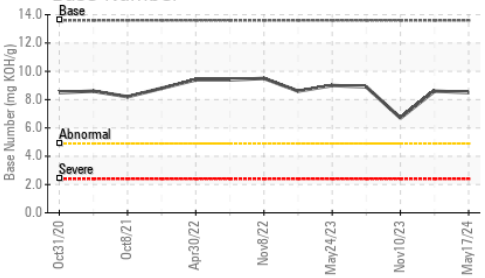
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | JR0207169 | JR0196475 | JR0185746 |
| Sample Date | | Client Info | | 17 May 2024 | 16 Feb 2024 | 10 Nov 2023 |
| Machine Age | hrs | Client Info | | 6567 | 6004 | 5562 |
| Oil Age | hrs | Client Info | | 563 | 442 | 497 |
| Filter Age | hrs | Client Info | | 563 | 442 | 497 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |
| Iron | ppm | ASTM D5185m | >51 | 12 | 14 | 12 |
| Chromium | ppm | ASTM D5185m | >11 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >5 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >31 | 2 | 4 | 4 |
| Lead | ppm | ASTM D5185m | >26 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m | >26 | 8 | 5 | 8 |
| Tin | ppm | ASTM D5185m | >4 | 0 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >22 | 8 | 7 | 7 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 2 | 1 |
| 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 | 0.4 | 0.4 | 0.4 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 9.3 | 9.1 | 8.8 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 23.1 | 22.9 | 21.9 |
| 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 |
| Sodium | ppm | ASTM D5185m | >31 | 2 | 3 | 2 |
| Boron | ppm | ASTM D5185m | | 231 | 200 | 193 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 273 | 270 | 257 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 886 | 908 | 876 |
| Calcium | ppm | ASTM D5185m | | 1599 | 1479 | 1412 |
| Phosphorus | ppm | ASTM D5185m | | 951 | 936 | 905 |
| Zinc | ppm | ASTM D5185m | | 1180 | 1184 | 1132 |
| Sulfur | ppm | ASTM D5185m | | 3361 | 3025 | 2844 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 18.1 | 17.5 | 17.2 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 13.6 | 8.5 | 8.6 | 6.7 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 13.9 | 14.1 | 14.2 |

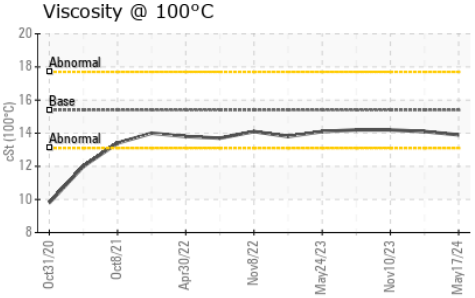
FT-IR (Direct Trend)



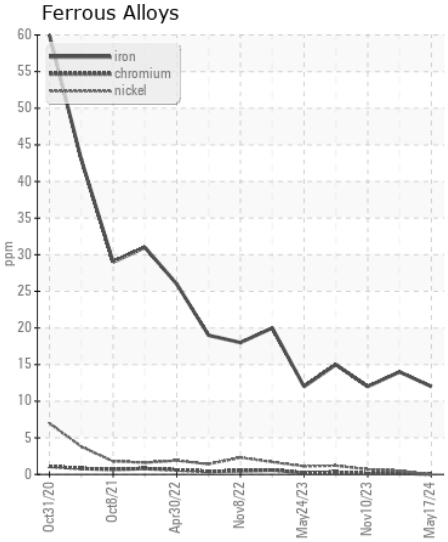

Base Number



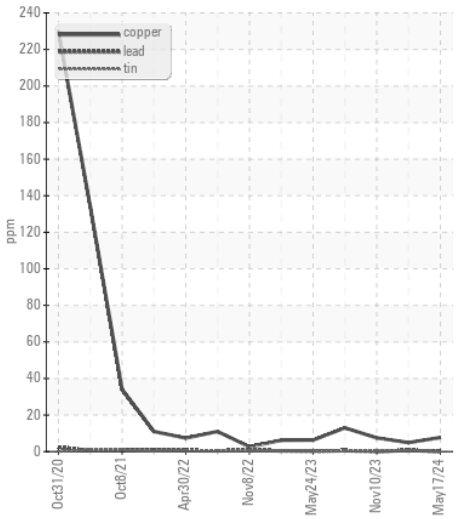

Viscosity @ 100°C



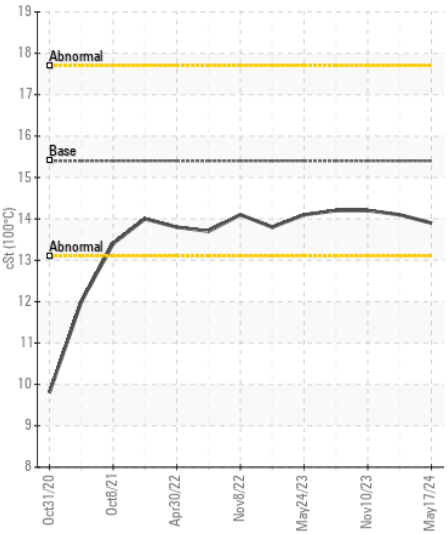

Ferrous Alloys



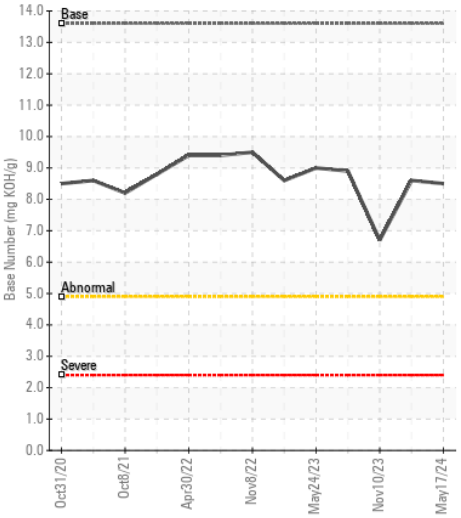

Non-ferrous Metals




Viscosity @ 100°C




Base Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : JR0207169 **Received** : 22 May 2024
**Lab Number** : 06187465 **Tested** : 23 May 2024
**Unique Number** : 11044217 **Diagnosed** : 24 May 2024 - Don Baldridge
**Test Package** : CONST ( Additional Tests: TBN )

*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)*

**JRE - CASTLE HAYNE**
113 CROWATAN ROAD
CASTLE HAYNE, NC
US 28429-5819
Contact: WILMINGTON SHOP
todd.simmons@jamesriverequipment.com;canastasio@wearcheck.com;canastasio@we
T: (910)675-9211
F: