



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

Area

[CITY OF GOLDSBORO]

Machine Id

JOHN DEERE 4045 PE4045U160178

Component

Diesel Engine

Fluid

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

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|-------------|----------|----------|
| Sample Number | | Client Info | | JR0222573 | --- | --- |
| Sample Date | | Client Info | | 24 Jun 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 421 | --- | --- |
| Oil Age | hrs | Client Info | | 421 | --- | --- |
| Filter Age | hrs | Client Info | | 421 | --- | --- |
| Oil Changed | | Client Info | | Changed | --- | --- |
| Filter Changed | | Client Info | | Changed | --- | --- |
| Sample Status | | | | ABNORMAL | --- | --- |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|--------------|--------|-------------|------|------|-----|-----|
| Iron | ppm | ASTM D5185m | >51 | 27 | --- | --- |
| Chromium | ppm | ASTM D5185m | >11 | <1 | --- | --- |
| Nickel | ppm | ASTM D5185m | >5 | 0 | --- | --- |
| Titanium | ppm | ASTM D5185m | | <1 | --- | --- |
| Silver | ppm | ASTM D5185m | >3 | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >31 | 10 | --- | --- |
| Lead | ppm | ASTM D5185m | >26 | 6 | --- | --- |
| Copper | ppm | ASTM D5185m | >26 | 14 | --- | --- |
| Tin | ppm | ASTM D5185m | >4 | <1 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | <1 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |

CONTAMINATION

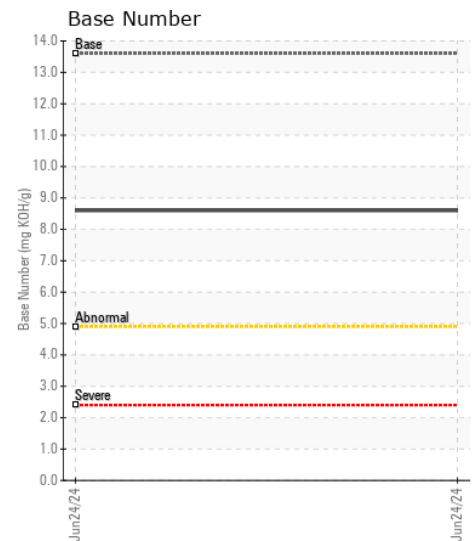
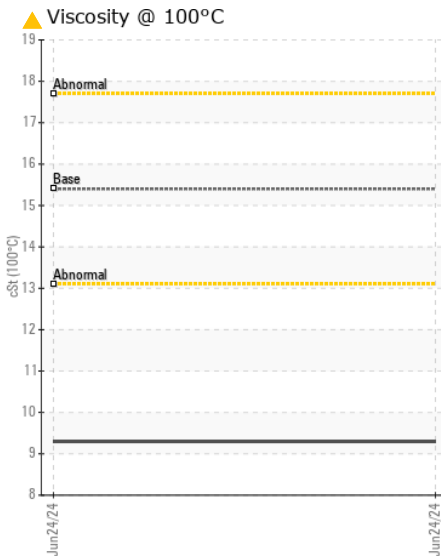
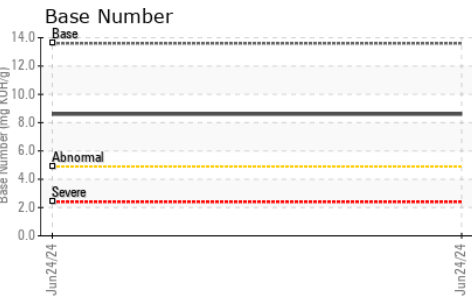
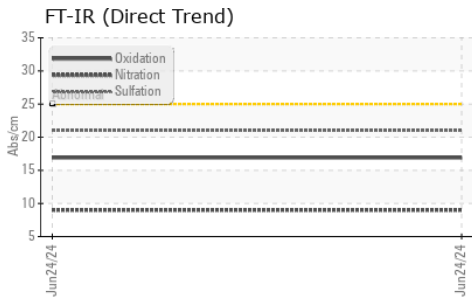
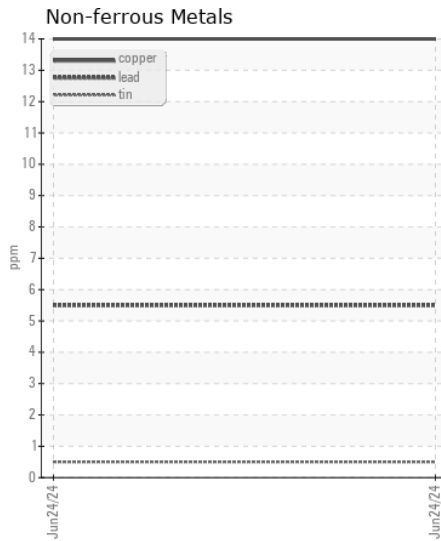
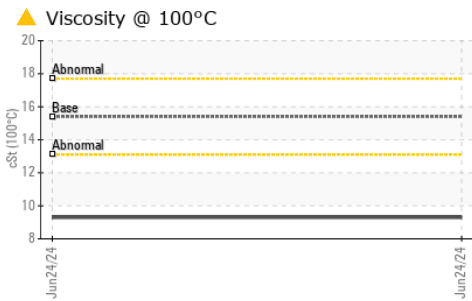
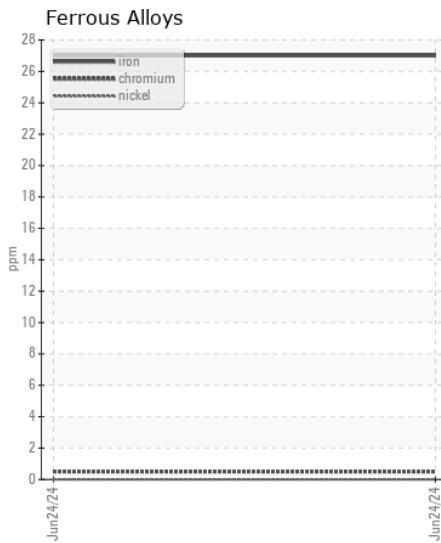
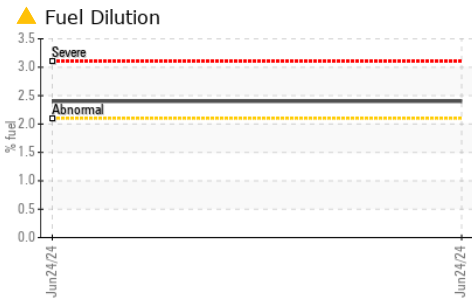
Light fuel dilution occurring.

| | | | | | | |
|------------------|----------|-------------|-------|-------|-----|-----|
| Silicon | ppm | ASTM D5185m | >22 | 10 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 2 | --- | --- |
| Fuel | % | ASTM D3524 | >2.1 | ▲ 2.4 | --- | --- |
| Water | | WC Method | >0.21 | NEG | --- | --- |
| Glycol | | WC Method | | NEG | --- | --- |
| Soot % | % | *ASTM D7844 | >3 | 0.1 | --- | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 9.0 | --- | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 21.0 | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.21 | NEG | --- | --- |

FLUID CONDITION

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

| | | | | | | |
|------------------|----------|-------------|------|-------|-----|-----|
| Sodium | ppm | ASTM D5185m | >31 | 5 | --- | --- |
| Boron | ppm | ASTM D5185m | | 232 | --- | --- |
| Barium | ppm | ASTM D5185m | | 3 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | 263 | --- | --- |
| Manganese | ppm | ASTM D5185m | | 4 | --- | --- |
| Magnesium | ppm | ASTM D5185m | | 867 | --- | --- |
| Calcium | ppm | ASTM D5185m | | 1585 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | 968 | --- | --- |
| Zinc | ppm | ASTM D5185m | | 1132 | --- | --- |
| Sulfur | ppm | ASTM D5185m | | 3520 | --- | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 16.9 | --- | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 13.6 | 8.6 | --- | --- |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | ▲ 9.3 | --- | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : JR0222573 **Received** : 28 Jun 2024
Lab Number : 06223257 **Tested** : 03 Jul 2024
Unique Number : 11101454 **Diagnosed** : 03 Jul 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

JRE - GARNER
 4161 AUBURN CHURCH RD
 GARNER, NC
 US 27529

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Contact: RALEIGH SHOP
 sean.betts@jamesriverequipment.com; catherine.anastasio@wearcheck.com

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

T: (919)614-2260

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F: (919)779-5432