



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

Area

[W21141-ASHWORTH]

Machine Id

JOHN DEERE 5045E 1PY5045EPHJ103366

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 | | JR0204399 | JR0163979 | JR0120704 |
| Sample Date | | Client Info | | 19 Feb 2024 | 01 May 2023 | 05 Apr 2022 |
| Machine Age | hrs | Client Info | | 883 | 807 | 650 |
| Oil Age | hrs | Client Info | | 883 | 157 | 650 |
| Filter Age | hrs | Client Info | | 883 | 157 | 650 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >51 | 7 | 11 | 12 |
| Chromium | ppm | ASTM D5185m | >11 | <1 | <1 | 1 |
| Nickel | ppm | ASTM D5185m | >5 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >31 | 3 | 3 | 3 |
| Lead | ppm | ASTM D5185m | >26 | <1 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >26 | <1 | <1 | <1 |
| 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 |

CONTAMINATION

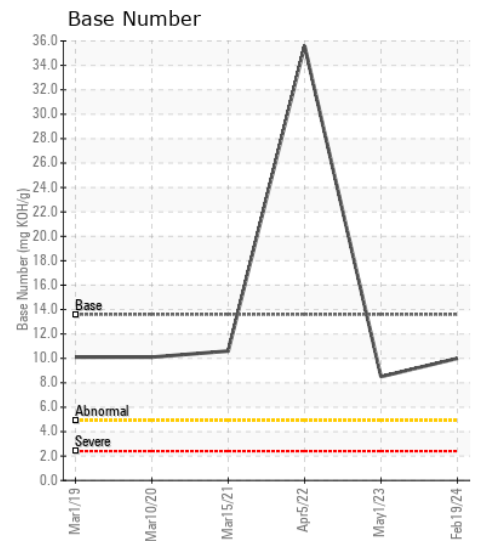
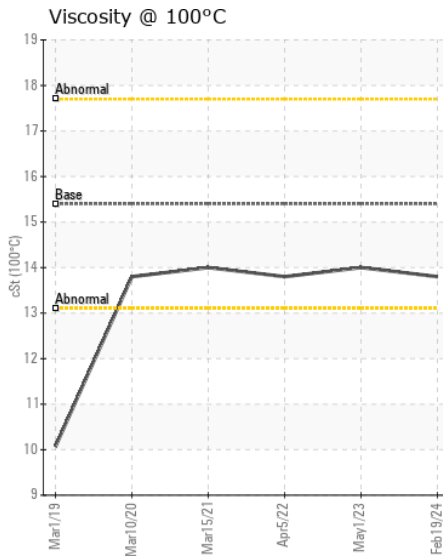
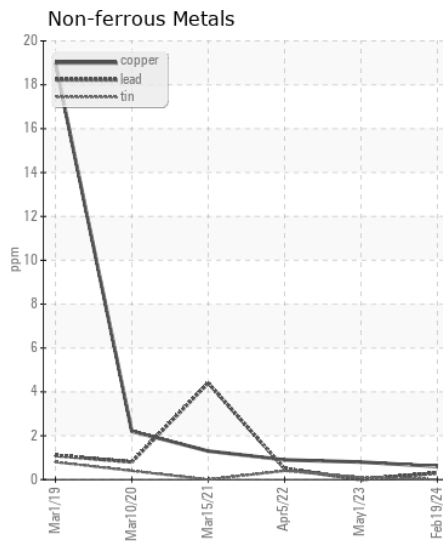
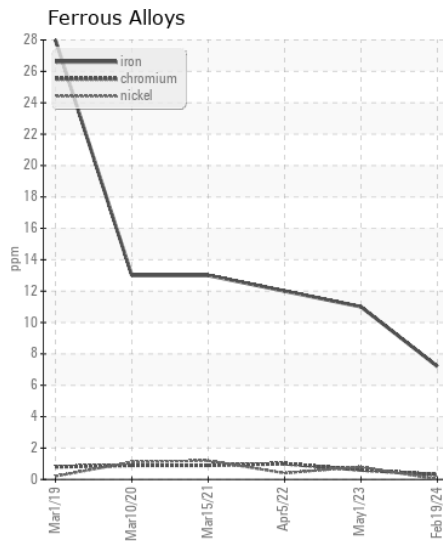
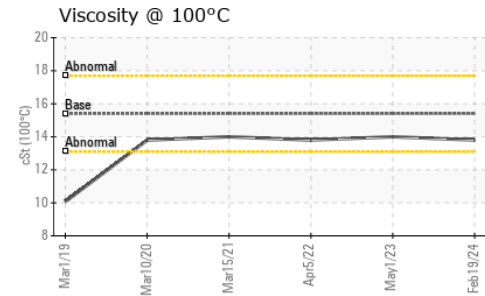
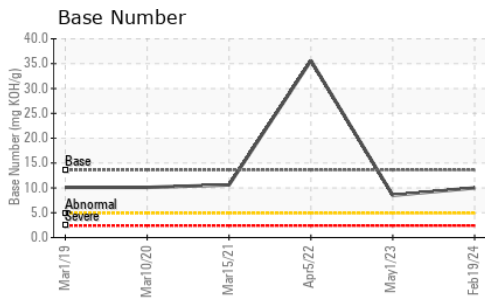
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >22 | 8 | 6 | 7 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 1 | 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 | 0.1 | 0.2 | 0.2 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 7.4 | 8.2 | 12.0 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 20.1 | 18.9 | 20.9 |
| 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 |

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 | 3 | 1 | 1 |
| Boron | ppm | ASTM D5185m | | 311 | 279 | 258 |
| Barium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 257 | 251 | 249 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 840 | 856 | 877 |
| Calcium | ppm | ASTM D5185m | | 1436 | 1417 | 1488 |
| Phosphorus | ppm | ASTM D5185m | | 928 | 913 | 971 |
| Zinc | ppm | ASTM D5185m | | 1056 | 1099 | 1062 |
| Sulfur | ppm | ASTM D5185m | | 3033 | 3633 | 2839 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 15.5 | 15.2 | 11.9 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 13.6 | 10.0 | 8.5 | 35.6 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 13.8 | 14.0 | 13.8 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : JR0204399

Lab Number : 06099572

Unique Number : 10897802

Test Package : CONST (Additional Tests: TBN)

Received : 26 Feb 2024

Tested : 27 Feb 2024

Diagnosed : 27 Feb 2024 - Wes Davis

JRE - BURKEVILLE

510 WEST COLONIAL DR

BURKEVILLE, VA

US 23922

Contact: BRANDON BOLLING

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F: (434)767-3774

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)