

## Machine Id JOHN DEERE 135P 1FF135PAJPF000805 Component Diesel Engine Fluid JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

|   | /                |          |             |           |             |          |          |
|---|------------------|----------|-------------|-----------|-------------|----------|----------|
| RECOMMENDATION  | Test             | UOM      | Method      | Limit/Abn | Current     | History1 | History2 |
| Oil and filter change at the time of sampling has been noted. Resample<br>at the next service interval to monitor.                        | Sample Number    |          | Client Info |           | JR0224509   |          |          |
|   | Sample Date      |          | Client Info |           | 09 Jul 2024 |          |          |
|   | Machine Age      | hrs      | Client Info |           | 442         |          |          |
|   | Oil Age          | hrs      | Client Info |           | 442         |          |          |
|   | Filter Age       | hrs      | Client Info |           | 442         |          |          |
|   | Oil Changed      |          | Client Info |           | Changed     |          |          |
|   | Filter Changed   |          | Client Info |           | Changed     |          |          |
|   | Sample Status    |          |             |           | ATTENTION   |          |          |
| W/EAD   |                  |          | ASTM D5185m | F 4       | 40          |          |          |
| WEAR<br>Metal levels are typical for a new component breaking in.   | Iron             | ppm      |             |           | 10          |          |          |
|   | Chromium         | ppm      | ASTM D5185m |           | 0           |          |          |
|   | Nickel           | ppm      | ASTM D5185m | >5        | 0           |          |          |
|   | Titanium         | ppm      | ASTM D5185m | 0         | 0           |          |          |
|   | Silver           | ppm      | ASTM D5185m |           | 0           |          |          |
|   | Aluminum         | ppm      | ASTM D5185m |           | 5           |          |          |
|   | Lead             | ppm      | ASTM D5185m |           | 0           |          |          |
|   | Copper           | ppm      | ASTM D5185m |           | 29          |          |          |
|   | Tin              | ppm      | ASTM D5185m | >4        | 0           |          |          |
|   | Vanadium         | ppm      | ASTM D5185m | NONE      | 0           |          |          |
|   | White Metal      | scalar   | *Visual     | NONE      | NONE        |          |          |
|   | Yellow Metal     | scalar   | *Visual     | NONE      | NONE        |          |          |
| CONTAMINATION   | Silicon          | ppm      | ASTM D5185m | >22       | 16          |          |          |
|   | Potassium        | ppm      | ASTM D5185m | >20       | <1          |          |          |
| Fuel content negligible. There is no indication of any contamination in the oil.  | Fuel             | %        | ASTM D3524  | >2.1      | 1.3         |          |          |
|   | Water            |          | WC Method   | >0.21     | NEG         |          |          |
|   | Glycol           |          | WC Method   |           | NEG         |          |          |
|   | Soot %           | %        | *ASTM D7844 | >3        | 0.1         |          |          |
|   | Nitration        | Abs/cm   | *ASTM D7624 | >20       | 7.1         |          |          |
|   | Sulfation        | Abs/.1mm | *ASTM D7415 | >30       | 17.0        |          |          |
|   | 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   | Sodium           | ppm      | ASTM D5185m | >31       | 3           |          |          |
| The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type. | Boron            | ppm      | ASTM D5185m |           | 182         |          |          |
|   | Barium           | ppm      | ASTM D5185m |           | 2           |          |          |
|   | Molybdenum       | ppm      | ASTM D5185m |           | 32          |          |          |
|   | Manganese        | ppm      | ASTM D5185m |           | <1          |          |          |
|   | Magnesium        | ppm      | ASTM D5185m |           | 131         |          |          |
|   | Calcium          | ppm      | ASTM D5185m |           | 2285        |          |          |
|   | Phosphorus       | ppm      | ASTM D5185m |           | 1033        |          |          |
|   | Zinc             | ppm      | ASTM D5185m |           | 1181        |          |          |
|   | Sulfur           | ppm      | ASTM D5185m |           | 3064        |          |          |
|   | Oxidation        | Abs/.1mm | *ASTM D7414 |           | 10.8        |          |          |
|   | Base Number (BN) |          | ASTM D2896  | 13.6      | 7.5         |          |          |
|   | Vice @ 100%      | ~C+      | ACTM D44E   | 4 - 4     |             |          |          |

Visc @ 100°C cSt

ASTM D445 15.4

11.9



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 **JRE - ASHLAND** 回梦 Sample No. : JR0224509 Received 11047 LEADBETTER RD : 11 Jul 2024 Lab Number : 06234152 Tested : 16 Jul 2024 ASHLAND, VA Unique Number : 11122986 Diagnosed : 16 Jul 2024 - Jonathan Hester US 23005 Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN) Contact: DAVID ZIEG Certificate L2367 dzieg@jamesriverequipment.com 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. T: (804)798-6001 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (804)798-0292

Contact/Location: DAVID ZIEG - JAMASH Page 2 of 2