WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL

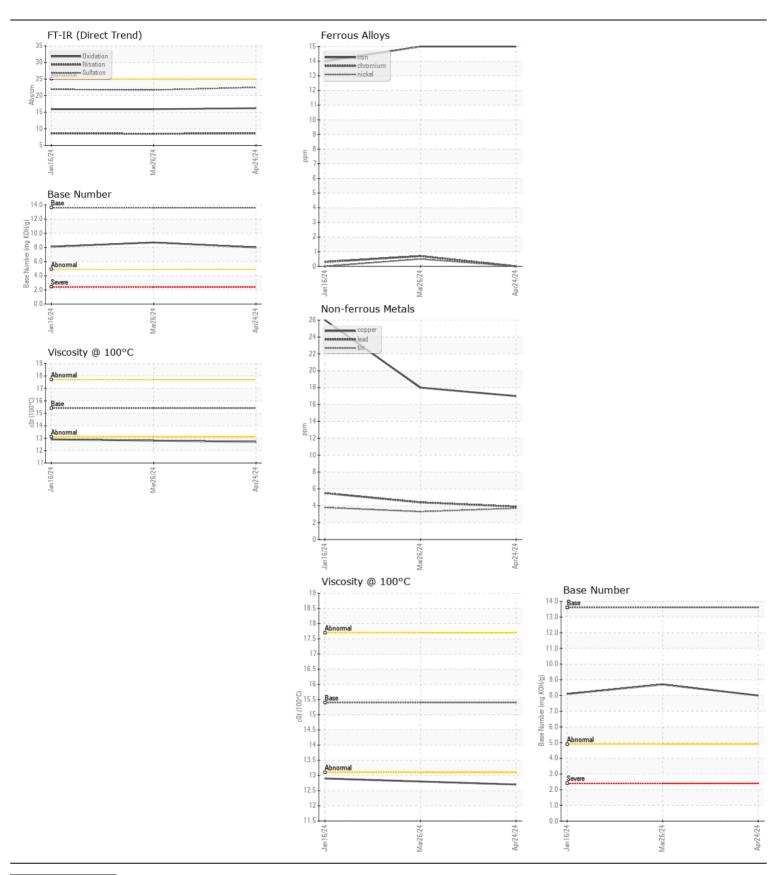
Machine Id

## JOHN DEERE 460P 1DW460PAAPFB06454

**Diesel Engine** 

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

| Resample at the next service interval to monitor.   Sample Date   Sample Date   Client Info   24 Apr 2024   50 Machine Age   hrs   Client Info   1987   26 Mar 2024   16.12   26 Mar 2024   26 Mar 2024   16.12   26 Mar 2024      | JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (- | GAL)             |          |             |           |             |             |             |
|--|---|------------------|----------|-------------|-----------|-------------|-------------|-------------|
| Resample at the next service interval to monitor.  | RECOMMENDATION                            | Test             | UOM      | Method      | Limit/Abn | Current     | History1    | History2    |
| Machine Age   hrs   Client Info   1988   1870   1475   1475   1575   1475   1575   1475   1   |   | Sample Number    |          | Client Info |           | JR0212425   | JR0209583   | JR0197640   |
| Oil Age  |   | Sample Date      |          | Client Info |           | 24 Apr 2024 | 26 Mar 2024 | 16 Jan 2024 |
| Filter Age   |   | Machine Age      | hrs      | Client Info |           | 1988        | 1870        | 1479        |
| Dil Changed   Client Info   Changed    |   | Oil Age          | hrs      | Client Info |           | 1597        | 391         | 0           |
| Filter Changed Sample Status   |   | Filter Age       | hrs      | Client Info |           | 0           | 0           | 0           |
| Normal   N   |   | Oil Changed      |          | Client Info |           | Changed     | Not Changd  | Changed     |
| Iron   ppm   ASTM D5185m   >51   15   15   15   15   15   15   1   |   |                  |          | Client Info |           | Changed     | Not Changd  | Changed     |
| All component wear rates are normal.    Chromium   ppm   ASTM D5185m   >11   0   <1   <   <   <   <   <   <   <   <  |   | Sample Status    |          |             |           | NORMAL      | NORMAL      | NORMAL      |
| All component wear rates are normal.    Chromium   ppm   ASTM D6185m   >11   0   <1   <   <   <   <   <   <   <   <  | WEAR                                      | Iron             | mag      | ASTM D5185m | >51       | 15          | 15          | 14          |
| Nickel   ppm   ASTM D5185m   >5   0   <1   0   0   |   |                  |          |             |           |             |             | <1          |
| Titanium   ppm   ASTM 05185m   3   0   <1   0   0   0   0   0   0   0   0   0  | All component wear rates are normal.      |                  |          |             |           |             |             |             |
| Silver   |   |                  |          |             | 70        |             |             |             |
| Aluminum   ppm   ASTM D5185m   >31   5   5   3   3   6   6   4   4   6   6   6   6   6   7   7   18   2   2   6   6   7   7   18   2   2   6   7   7   7   7   7   7   7   7   7   |   |                  |          |             | ~3        |             |             |             |
| Lead   ppm   ASTM D5185m   >26   4   4   6   6   |   |                  |          |             |           |             |             |             |
| Copper   |   |                  |          |             |           |             |             |             |
| Tin  |   |                  |          |             |           |             |             |             |
| Vanadium   ppm   ASTM D5185m   NONE   |   |                  |          |             |           |             |             |             |
| White Metal   Scalar   Visual   NONE   NON   |   |                  |          |             | >4        |             |             |             |
| Yellow Metal   Scalar *Visual   NONE   NON   |   |                  |          |             | NONE      | -           |             |             |
| Silicon   ppm   ASTM D5185m   >22   6   8   6  |   |                  |          |             |           |             |             | NONE        |
| Potassium   ppm   ASTM D5185m   >20   0   3   <  | <u></u>                                   | Yellow Metal     | scalar   | "VISUAI     | NONE      | NONE        | NONE        | NONE        |
| Fuel   WC Method   >2.1   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1.0   <1   | CONTAMINATION                             | Silicon          | ppm      |             |           | 6           |             | 6           |
| Water   WC Method   Vol. 21   Vol. 21   Vol. 21   Vol. 21   Vol. 22   Vol. 21   Vol. 22   Vol. 24   Vol. 24   Vol. 24   Vol. 25   Vol. 25   Vol. 25   Vol. 26   Vol. 27   Vol.   |   | Potassium        | ppm      | ASTM D5185m | >20       | 0           | 3           | <1          |
| Glycol   |   | Fuel             |          | WC Method   | >2.1      | <1.0        | <1.0        | <1.0        |
| Soot % % *ASTM D7844 >3  |   | Water            |          |             | >0.21     | NEG         | NEG         | NEG         |
| Nitration   Abs/cm   *ASTM D7624   >20   8.6   8.5   8   |   | Glycol           |          | WC Method   |           | NEG         | NEG         | NEG         |
| Sulfation   Abs/.1mm   |   | Soot %           | %        | *ASTM D7844 | >3        | 0.4         | 0.3         | 0.3         |
| Silt scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON   |   | Nitration        | Abs/cm   | *ASTM D7624 | >20       | 8.6         | 8.5         | 8.6         |
| Debris scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON   |   | Sulfation        | Abs/.1mm | *ASTM D7415 | >30       | 22.5        | 21.7        | 21.9        |
| Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE NONE NORML |   | Silt             | scalar   | *Visual     | NONE      | NONE        | NONE        | NONE        |
| Appearance scalar *Visual NORML NORM |   | Debris           | scalar   | *Visual     | NONE      | NONE        | NONE        | NONE        |
| Cdor scalar *Visual NORML NORML NORML NORML NORML NORML NORML NEG  |   | Sand/Dirt        | scalar   | *Visual     | NONE      | NONE        | NONE        | NONE        |
| Codor scalar *Visual NORML NOR |   | Appearance       | scalar   | *Visual     | NORML     | NORML       | NORML       | NORMI       |
| FLUID CONDITION  Sodium ppm ASTM D5185m >31 1 1 3  Boron ppm ASTM D5185m >31 1 1 3  Barium ppm ASTM D5185m >41 0 0  Molybdenum ppm ASTM D5185m >61 0 0  Molybdenum ppm ASTM D5185m 266 274 2   |   |                  |          | *Visual     |           | NORML       |             | NORML       |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.  Boron ppm ASTM D5185m 185 218 11  Barium ppm ASTM D5185m <1 0 0  Molybdenum ppm ASTM D5185m 266 274 22  |   | Emulsified Water | scalar   | *Visual     | >0.21     | NEG         | NEG         | NEG         |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.  Boron ppm ASTM D5185m 185 218 11  Barium ppm ASTM D5185m <1 0 0  Molybdenum ppm ASTM D5185m 266 274 22  | FLUID CONDITION                           | Sodium           | nnm      | ASTM D5185m | >31       | 1           | 1           | 3           |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.  Barium ppm ASTM D5185m <1 0 0 0 Molybdenum ppm ASTM D5185m 266 274 2.   | TEGID GONDITION                           |                  |          |             | 701       |             |             | 191         |
| oil. The condition of the oil is suitable for further service.  Molybdenum ppm ASTM D5185m  266  274  2  | , ,                                       |                  |          |             |           |             |             |             |
|  |   |                  |          |             |           |             |             | 249         |
|  |   | Manganese        | ppm      | ASTM D5185m |           | <1          | <1          | <1          |
|  |   |                  |          |             |           |             |             | 867         |
|  |   | •                |          |             |           |             |             | 1450        |
|  |   |                  |          |             |           |             |             | 875         |
|  |   |                  |          |             |           |             |             |             |
| ··   |   |                  |          |             |           |             |             | 1124        |
|  |   |                  |          |             | . OF      |             |             | 2980        |
|  |   |                  |          |             |           |             |             | 15.9        |
|  |   |                  |          |             |           |             |             | 8.1         |
| Visc @ 100°C cSt ASTM D445 15.4 12.7 12.8 1.   |   | visc @ 100°C     | 001      | A51W D445   | 15.4      | 12.7        | 12.8        | 12.9        |







Certificate L2367

Laboratory

Sample No.

Lab Number : 06160127

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : JR0212425

**Tested** Unique Number : 10995550 Diagnosed Test Package : CONST (Additional Tests: TBN)

Received : 25 Apr 2024 : 29 Apr 2024

: 29 Apr 2024 - Sean Felton

JRE - GARNER 4161 AUBURN CHURCH RD GARNER, NC

US 27529 Contact: RALEIGH SHOP sean.betts@jamesriverequipment.com;catherine.anastasio@wearcheck.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: (919)614-2260 F: (919)779-5432 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)