



OIL ANALYSIS REPORT

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



Area
Store 8 - Pikeville
Machine Id
JOHN DEERE 650K 621 (S/N EDE244299)
Component
Diesel Engine
Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (4 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | LECP192489 | LECP188725 | LECP182517 |
| Sample Date | | Client Info | | 19 Jun 2024 | 26 Sep 2018 | 11 Aug 2017 |
| Machine Age | hrs | Client Info | | 4845 | 2832 | 2447 |
| Oil Age | hrs | Client Info | | 500 | 385 | 275 |
| Filter Age | hrs | Client Info | | 500 | 385 | 275 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >51 | 14 | 35 | 35 |
| Chromium | ppm | ASTM D5185m | >11 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >5 | <1 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | | <1 | 102 | 99 |
| Silver | ppm | ASTM D5185m | >3 | <1 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >31 | 3 | 2 | 3 |
| Lead | ppm | ASTM D5185m | >26 | 2 | 2 | <1 |
| Copper | ppm | ASTM D5185m | >26 | 2 | 0 | 11 |
| Tin | ppm | ASTM D5185m | >4 | <1 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

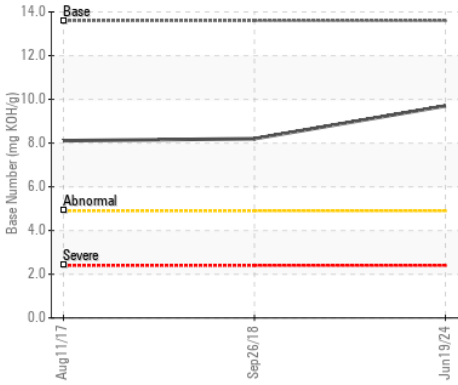
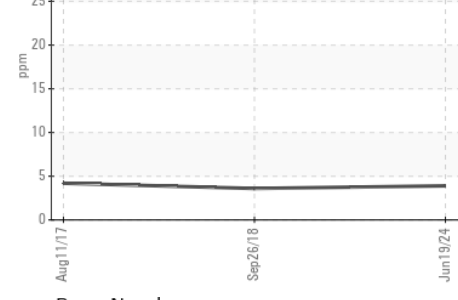
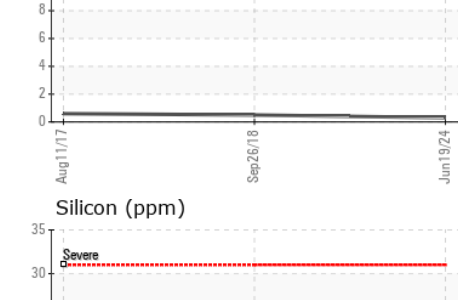
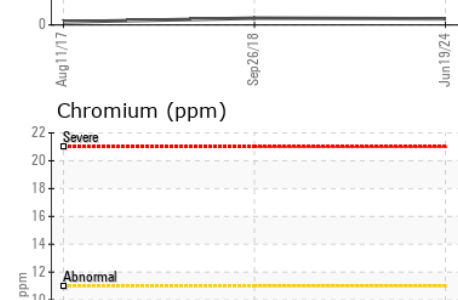
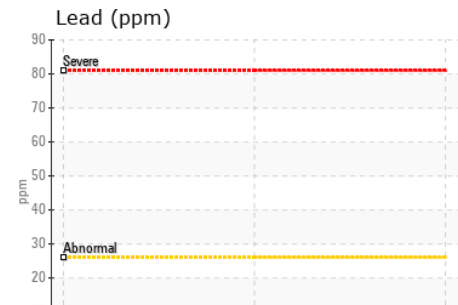
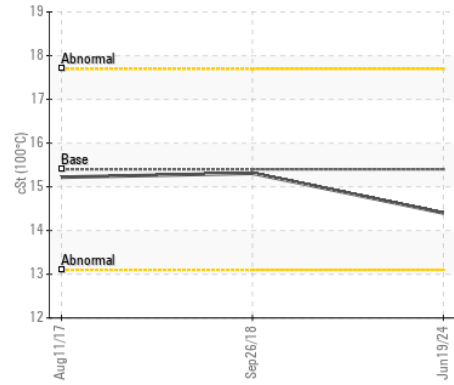
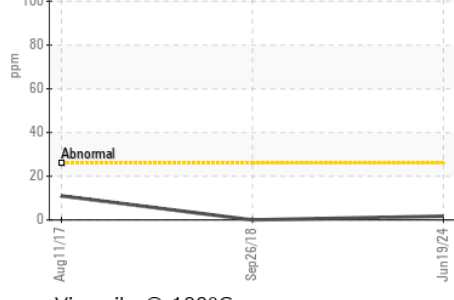
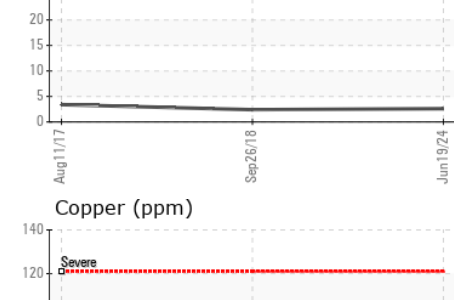
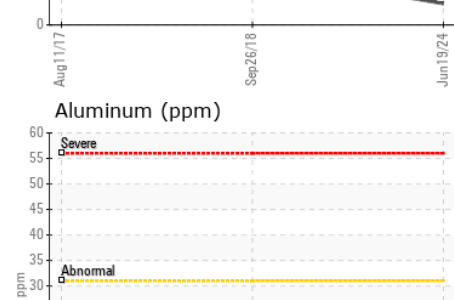
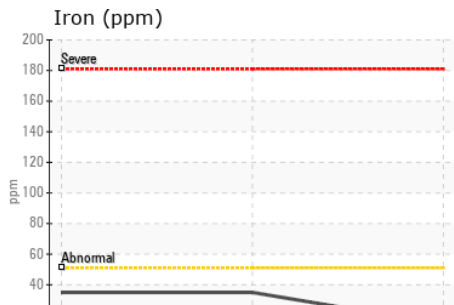
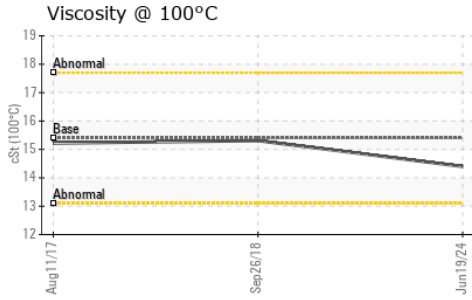
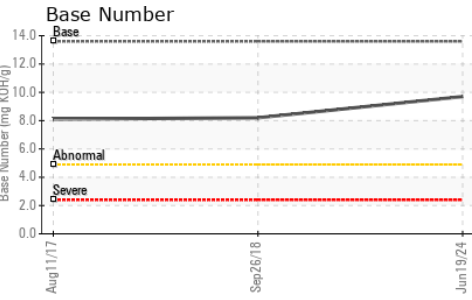
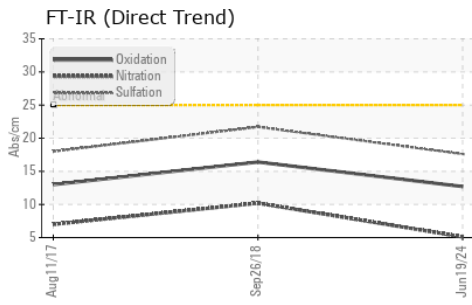
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >120 | 4 | 4 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 6 | <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 | 0.3 | 1 | 0.6 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 5.1 | 10.2 | 7. |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 17.6 | 21.7 | 18. |
| 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 | <1 | 6 | 5 |
| Boron | ppm | ASTM D5185m | | 7 | 85 | 55 |
| Barium | ppm | ASTM D5185m | | 1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 55 | 1 | 2 |
| Manganese | ppm | ASTM D5185m | | <1 | 2 | 1 |
| Magnesium | ppm | ASTM D5185m | | 831 | 408 | 297 |
| Calcium | ppm | ASTM D5185m | | 1100 | 1852 | 1844 |
| Phosphorus | ppm | ASTM D5185m | | 907 | 870 | 952 |
| Zinc | ppm | ASTM D5185m | | 1170 | 1059 | 1107 |
| Sulfur | ppm | ASTM D5185m | | 3031 | 3042 | 1911 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 12.7 | 16.4 | 13. |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 13.6 | 9.7 | 8.2 | 8.11 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 14.4 | 15.31 | 15.22 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LECP192489 **Received** : 25 Jun 2024
Lab Number : 06219552 **Tested** : 26 Jun 2024
Unique Number : 11097749 **Diagnosed** : 26 Jun 2024 - Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

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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)