



OIL ANALYSIS REPORT

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

Area

Store 5 - Cross Lanes [133322]

Machine Id

PETERBILT PB337 2NP2HJ6X3GM368643

Component

Diesel Engine

Fluid

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (28 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | LEC0033900 | LEC0018654 | LEC0010297 |
| Sample Date | | Client Info | | 15 Nov 2022 | 10 Jun 2021 | 12 Feb 2020 |
| Machine Age | mls | Client Info | | 120248 | 99457 | 83388 |
| Oil Age | mls | Client Info | | 20791 | 16069 | 14500 |
| Filter Age | mls | Client Info | | 0 | 0 | 14500 |
| 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 | >110 | 84 | 64 | 36 |
| Chromium | ppm | ASTM D5185m | >4 | 3 | 2 | 1 |
| Nickel | ppm | ASTM D5185m | >2 | <1 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >25 | 17 | 11 | 14 |
| Lead | ppm | ASTM D5185m | >45 | 2 | <1 | 1 |
| Copper | ppm | ASTM D5185m | >85 | 4 | 5 | 2 |
| Tin | ppm | ASTM D5185m | >4 | <1 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

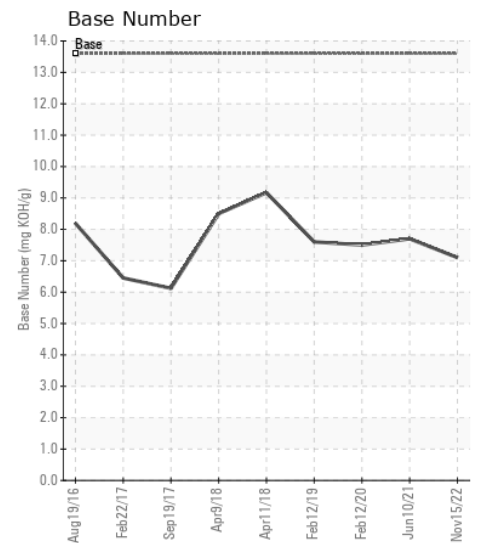
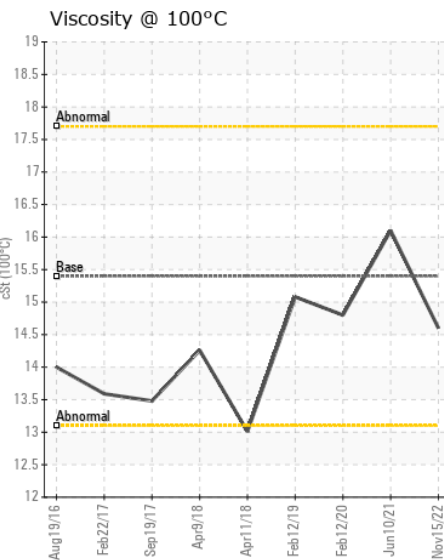
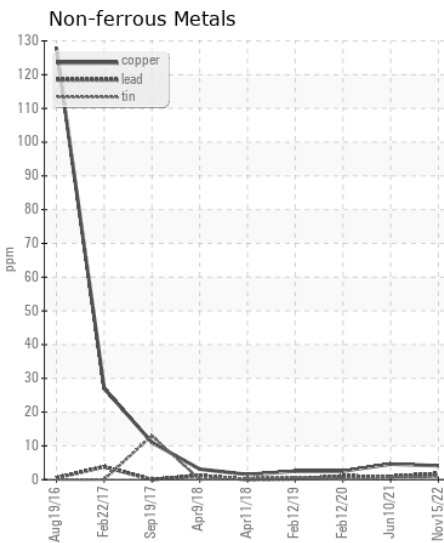
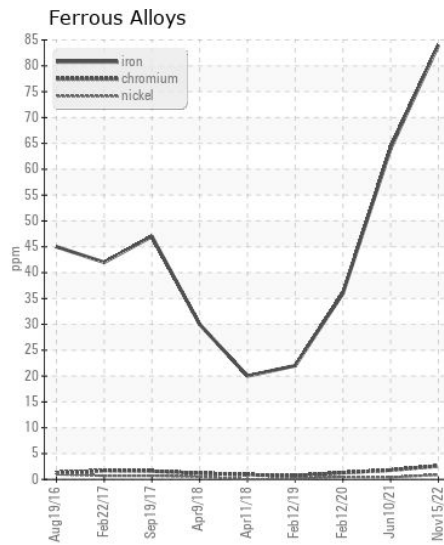
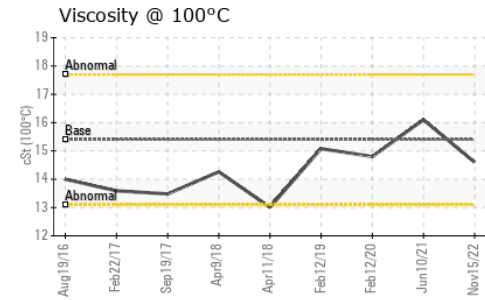
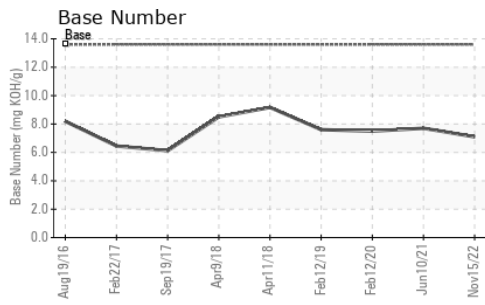
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >120 | 16 | 12 | 9 |
| Potassium | ppm | ASTM D5185m | >20 | 28 | 18 | 18 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 1.3 | 1 | 0.9 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 18.1 | 15.8 | 13.6 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 36.4 | 33.2 | 30.6 |
| 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 | >0.2 | 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 | | 5 | 10 | 7 |
| Boron | ppm | ASTM D5185m | | 42 | 79 | 69 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 280 | 277 | 246 |
| Manganese | ppm | ASTM D5185m | | 2 | 1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 855 | 843 | 827 |
| Calcium | ppm | ASTM D5185m | | 1634 | 1642 | 1500 |
| Phosphorus | ppm | ASTM D5185m | | 864 | 859 | 784 |
| Zinc | ppm | ASTM D5185m | | 1112 | 1080 | 992 |
| Sulfur | ppm | ASTM D5185m | | 3465 | 2730 | 2506 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 37.5 | 32.2 | 29.7 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 13.6 | 7.1 | 7.7 | 7.5 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 14.6 | 16.1 | 14.8 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0033900 **Received** : 18 Nov 2022
Lab Number : 05697259 **Tested** : 21 Nov 2022
Unique Number : 10221832 **Diagnosed** : 22 Nov 2022 - Jonathan Hester
Test Package : CONST (Additional Tests: TBN)

LESLIE EQUIPMENT COMPANY
 105 TENNIS CENTER DR.
 MARIETTA, OH
 US 45750-9765
 Contact: LEANNE KENDALL
 KendalLeanne@lec1.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.

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

T:
 F: (740)373-5570