



OIL ANALYSIS REPORT

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

Area
Store 1 - Cowen
 Machine Id
CHEVROLET 3500 1GB4YSEY6LF321079

Component
Diesel Engine
 Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (11 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | LEC0050080 | LEC0044861 | LEC0044748 |
| Sample Date | | Client Info | | 11 Jul 2024 | 07 May 2024 | 11 Dec 2023 |
| Machine Age | hrs | Client Info | | 76605 | 67912 | 60393 |
| Oil Age | hrs | Client Info | | 8693 | 7519 | 7369 |
| Filter Age | hrs | Client Info | | 8693 | 7519 | 7369 |
| 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 | >100 | 49 | 43 | 44 |
| Chromium | ppm | ASTM D5185m | >20 | 1 | 2 | 2 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 12 | 12 | 11 |
| Lead | ppm | ASTM D5185m | >40 | 6 | 5 | 6 |
| Copper | ppm | ASTM D5185m | >330 | 4 | 5 | 8 |
| Tin | ppm | ASTM D5185m | >15 | <1 | 2 | 2 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| 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.

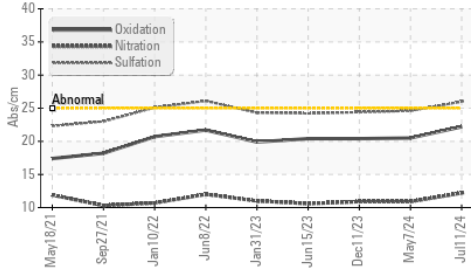
| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >120 | 10 | 14 | 13 |
| Potassium | ppm | ASTM D5185m | >20 | 12 | 15 | 15 |
| Fuel | % | ASTM D3524 | >5 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 1.1 | 0.8 | 0.8 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 12.2 | 10.9 | 10.9 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 26.0 | 24.6 | 24.4 |
| 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

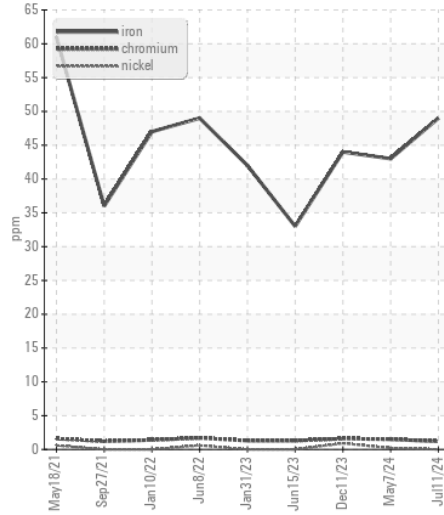
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | | 2 | 1 | 0 |
| Boron | ppm | ASTM D5185m | | 106 | 208 | 145 |
| Barium | ppm | ASTM D5185m | | <1 | <1 | 11 |
| Molybdenum | ppm | ASTM D5185m | | 231 | 262 | 237 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 736 | 781 | 733 |
| Calcium | ppm | ASTM D5185m | | 1399 | 1519 | 1403 |
| Phosphorus | ppm | ASTM D5185m | | 790 | 964 | 794 |
| Zinc | ppm | ASTM D5185m | | 936 | 1109 | 1005 |
| Sulfur | ppm | ASTM D5185m | | 2959 | 3167 | 3085 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 22.2 | 20.5 | 20.4 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 13.6 | 7.9 | 8.2 | 8.3 |
| Visc @ 100°C | cSt | ASTM D445 | 15.4 | 12.9 | 13.7 | 13.4 |

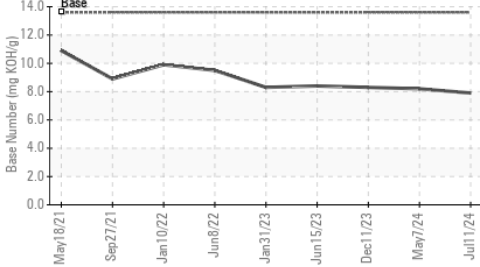
FT-IR (Direct Trend)



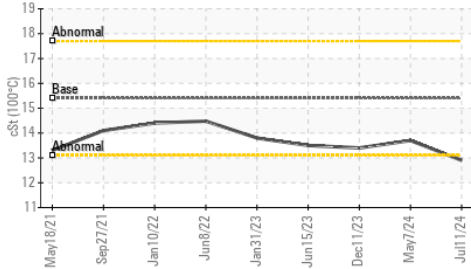
Ferrous Alloys



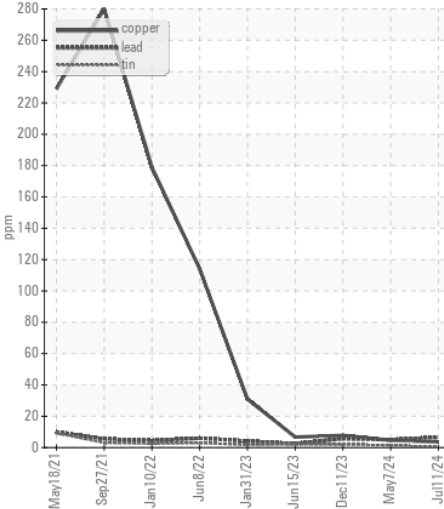
Base Number



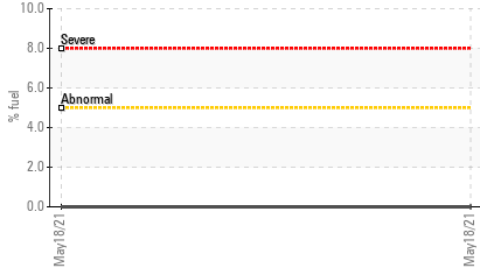
Viscosity @ 100°C



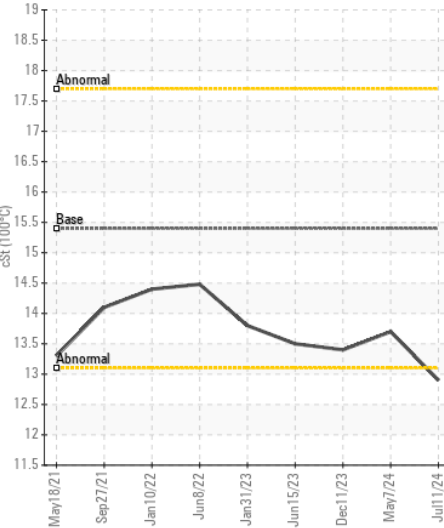
Non-ferrous Metals



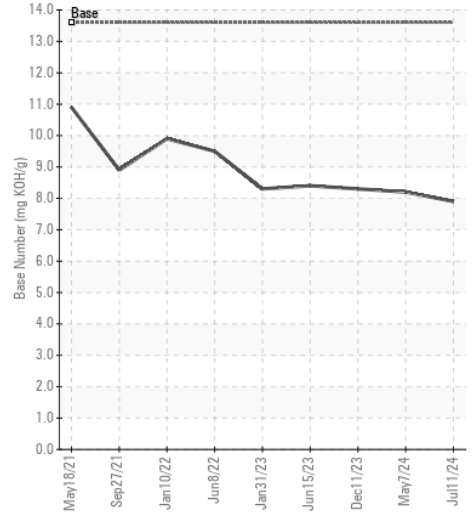
Fuel Dilution



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LEC0050080 **Received** : 15 Jul 2024
Lab Number : 06235650 **Tested** : 16 Jul 2024
Unique Number : 11124484 **Diagnosed** : 16 Jul 2024 - Don Baldridge
Test Package : CONST (Additional Tests: FuelDilution, 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)

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