



OIL ANALYSIS REPORT

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

Machine Id
JOHN DEERE 30212
 Component
Diesel Engine
 Fluid
CHEVRON 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0924425 | WC0882606 | WC0856750 |
| Sample Date | | Client Info | | 21 May 2024 | 17 Jan 2024 | 17 Oct 2023 |
| Machine Age | hrs | Client Info | | 3801 | 3513 | 3349 |
| Oil Age | hrs | Client Info | | 250 | 250 | 1750 |
| Filter Age | hrs | Client Info | | 250 | 250 | 1750 |
| 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 | 4 | 6 | 8 |
| Chromium | ppm | ASTM D5185m | >11 | 0 | 0 | <1 |
| Nickel | ppm | ASTM D5185m | >5 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 1 | <1 | 3 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >31 | 3 | 4 | 3 |
| Lead | ppm | ASTM D5185m | >26 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m | >26 | 0 | <1 | 1 |
| Tin | ppm | ASTM D5185m | >4 | <1 | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 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.

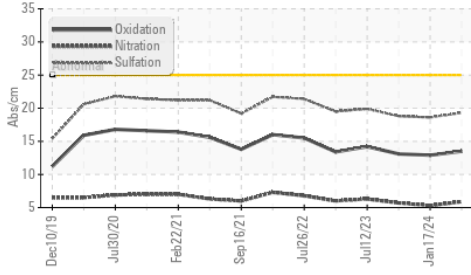
| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >22 | 8 | 9 | 9 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 0 | 3 |
| Fuel | | WC Method | >2.1 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.21 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.2 | 0.1 | 0.3 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 5.9 | 5.3 | 5.7 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 19.3 | 18.6 | 18.8 |
| 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

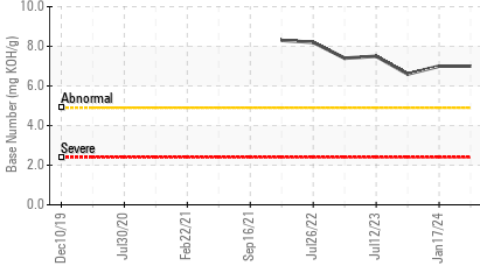
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|--------------|------|------|
| Sodium | ppm | ASTM D5185m | >50 | <1 | <1 | <1 |
| Boron | ppm | ASTM D5185m | | 479 | 438 | 376 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 82 | 88 | 80 |
| Manganese | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | | 396 | 399 | 384 |
| Calcium | ppm | ASTM D5185m | | 1381 | 1357 | 1394 |
| Phosphorus | ppm | ASTM D5185m | | 1000 | 1020 | 1007 |
| Zinc | ppm | ASTM D5185m | | 1209 | 1214 | 1248 |
| Sulfur | ppm | ASTM D5185m | | 3516 | 3236 | 3260 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 13.5 | 12.9 | 13.1 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 7.0 | 7.0 | 6.6 |
| Visc @ 100°C | cSt | ASTM D445 | 14.4 | 13.3 | 13.1 | 13.6 |

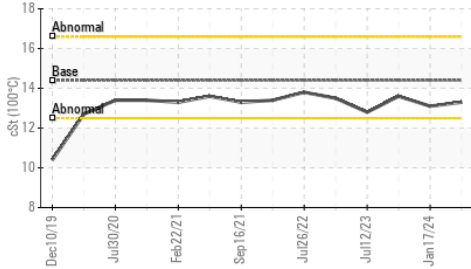
FT-IR (Direct Trend)



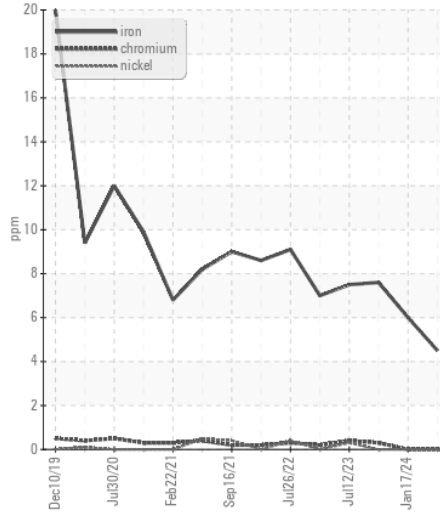
Base Number



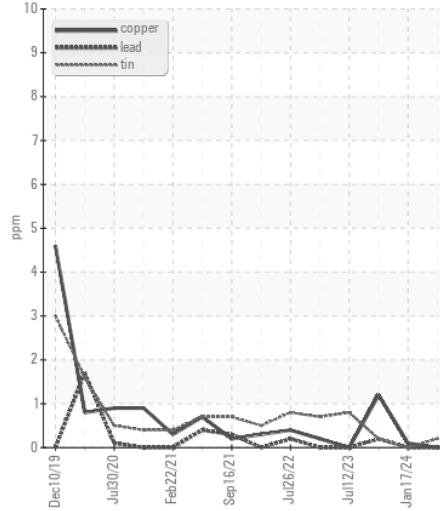
Viscosity @ 100°C



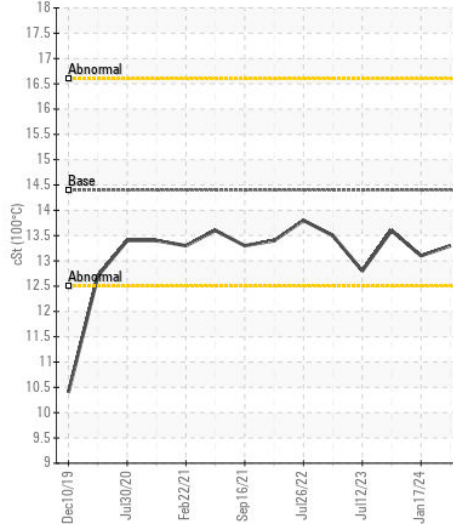
Ferrous Alloys



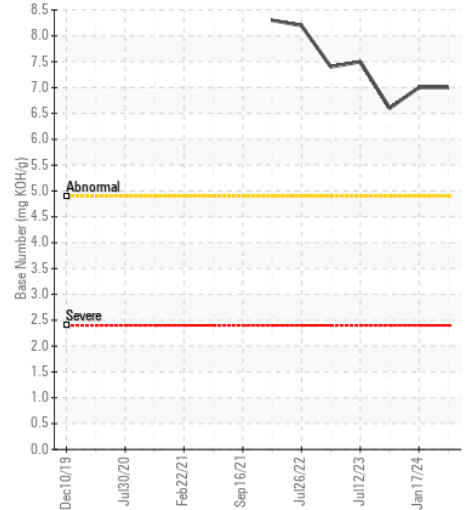
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0924425 **Received** : 24 May 2024
Lab Number : 06191703 **Tested** : 29 May 2024
Unique Number : 11048455 **Diagnosed** : 29 May 2024 - Angela Borella
Test Package : CONST (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)