



WEAR CHECK

OIL ANALYSIS REPORT

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

Machine Id
1454
Component
Diesel Engine
Fluid
MOBIL 1 5W30 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0827824 | WC0827755 | WC0691328 |
| Sample Date | | Client Info | | 24 Feb 2024 | 26 Sep 2023 | 12 Apr 2023 |
| Machine Age | mls | Client Info | | 88518 | 79612 | 68304 |
| Oil Age | mls | Client Info | | 0 | 11300 | 0 |
| Filter Age | mls | Client Info | | 0 | 11300 | 0 |
| Oil Changed | | Client Info | | Changed | N/A | Changed |
| Filter Changed | | Client Info | | Changed | N/A | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 42 | 66 | 62 |
| Chromium | ppm | ASTM D5185m | >20 | 1 | 2 | 3 |
| Nickel | ppm | ASTM D5185m | >4 | <1 | <1 | 1 |
| Titanium | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 6 | 5 | 7 |
| Lead | ppm | ASTM D5185m | >40 | 0 | <1 | <1 |
| Copper | ppm | ASTM D5185m | >330 | 22 | 28 | 25 |
| Tin | ppm | ASTM D5185m | >15 | <1 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

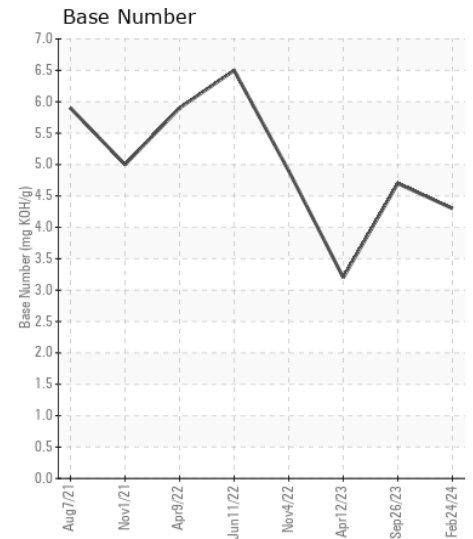
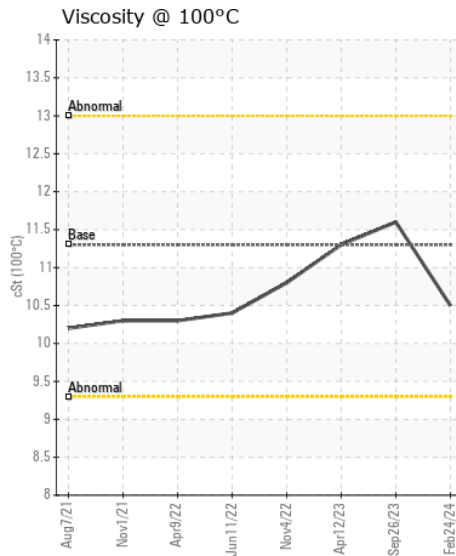
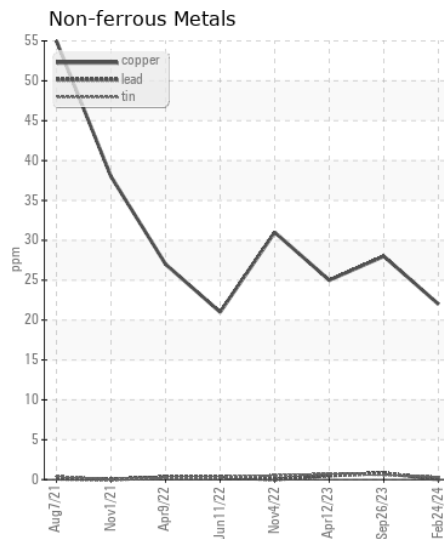
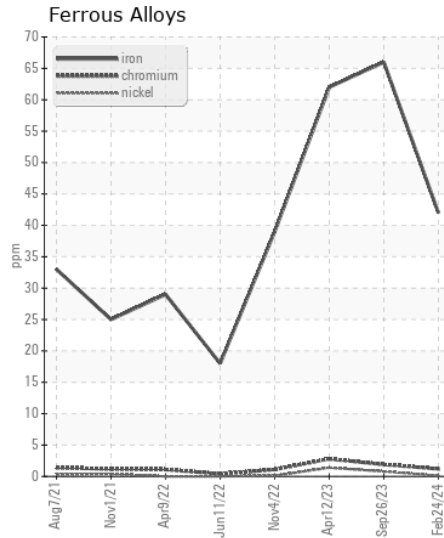
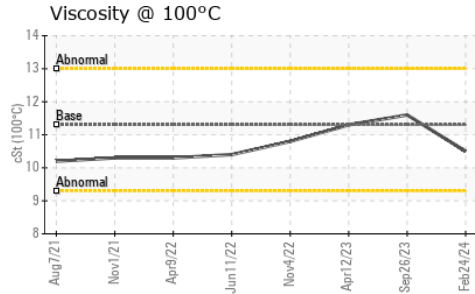
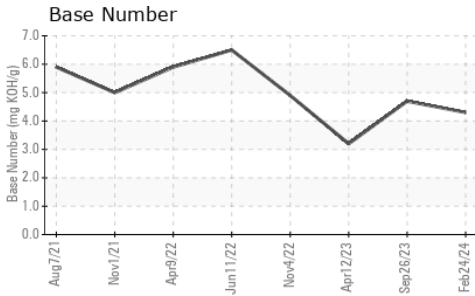
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 10 | 11 | 9 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 3 | 4 |
| 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 | 0.1 | 0.1 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 15.2 | 16.2 | 15.4 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 28.4 | 31.4 | 27.6 |
| 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 | 8 | 7 |
| Boron | ppm | ASTM D5185m | 94 | 25 | 20 | 25 |
| Barium | ppm | ASTM D5185m | 0.0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0.0 | 70 | 88 | 85 |
| Manganese | ppm | ASTM D5185m | | 1 | 2 | 3 |
| Magnesium | ppm | ASTM D5185m | 1388 | 515 | 609 | 592 |
| Calcium | ppm | ASTM D5185m | 820 | 995 | 903 | 626 |
| Phosphorus | ppm | ASTM D5185m | 720 | 633 | 580 | 524 |
| Zinc | ppm | ASTM D5185m | 780 | 738 | 724 | 680 |
| Sulfur | ppm | ASTM D5185m | 2240 | 2308 | 2131 | 1696 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 25.6 | 30.7 | 28.1 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 4.3 | 4.7 | 3.2 |
| Visc @ 100°C | cSt | ASTM D445 | 11.3 | 10.5 | 11.6 | 11.3 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0827824
Lab Number : 06104973
Unique Number : 10903203
Test Package : FLEET
Received : 29 Feb 2024
Tested : 01 Mar 2024
Diagnosed : 04 Mar 2024 - Sean Felton

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 F:

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)