



OIL ANALYSIS REPORT

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

Machine Id
1401
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | WC0932899 | WC0806620 | WC0729858 |
| Sample Date | | Client Info | | 12 Apr 2024 | 01 May 2023 | 21 Sep 2022 |
| Machine Age | mls | Client Info | | 199317 | 184141 | 174130 |
| Oil Age | mls | Client Info | | 0 | 0 | 0 |
| Filter Age | mls | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | Not Changd |
| Filter Changed | | Client Info | | Not Changd | Not Changd | Not Changd |
| Sample Status | | | | NORMAL | NORMAL | ATTENTION |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|-------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 8 | 19 | 33 |
| Chromium | ppm | ASTM D5185m | >20 | 0 | <1 | 1 |
| Nickel | ppm | ASTM D5185m | >4 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | 2 | 4 | 7 |
| Lead | ppm | ASTM D5185m | >40 | 0 | 0 | 2 |
| Copper | ppm | ASTM D5185m | >330 | 0 | <1 | 5 |
| Tin | ppm | ASTM D5185m | >15 | 0 | 0 | <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

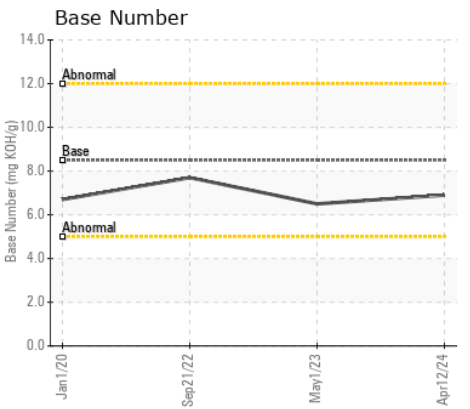
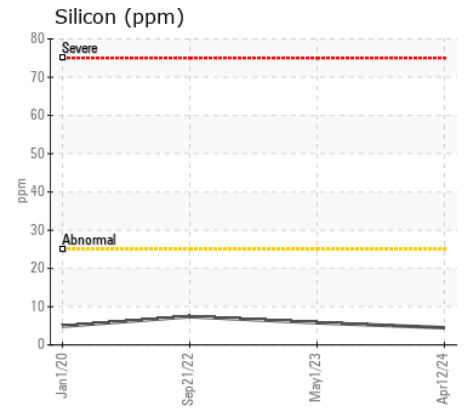
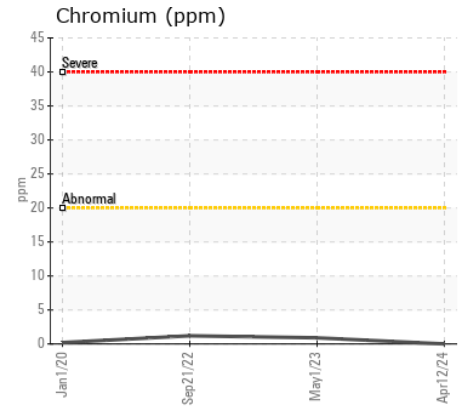
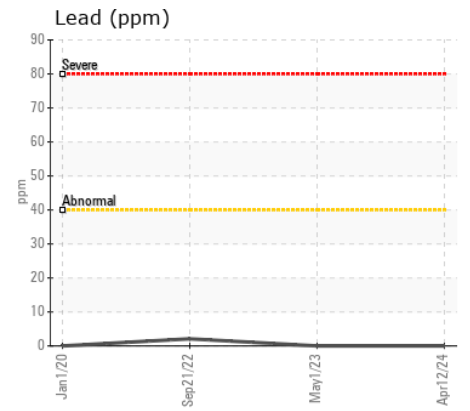
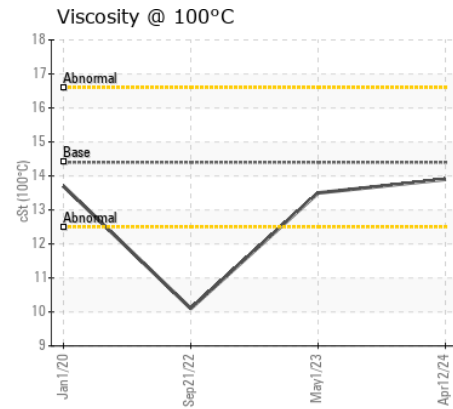
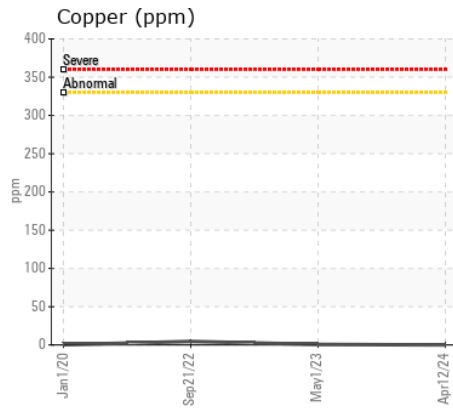
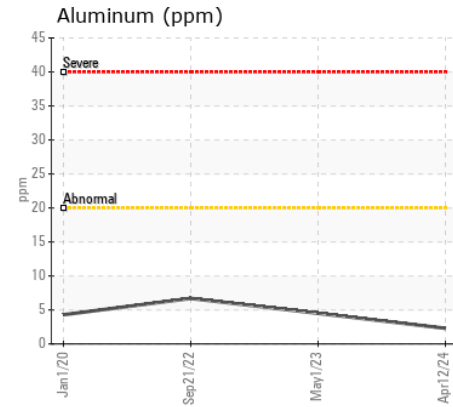
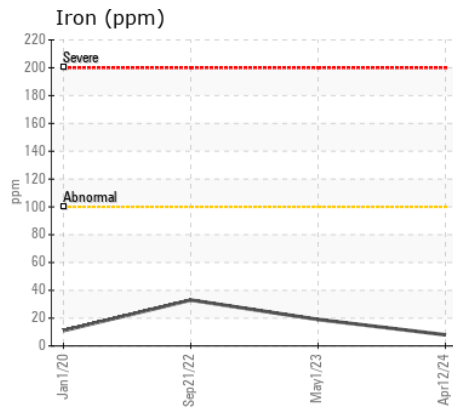
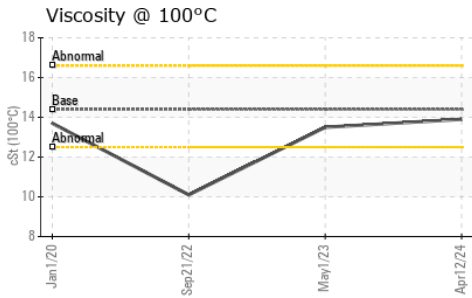
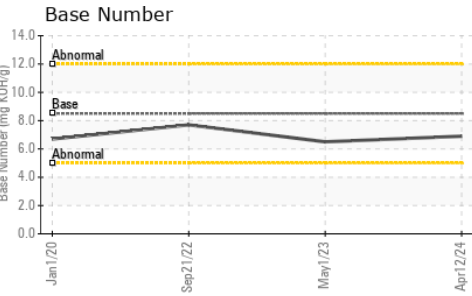
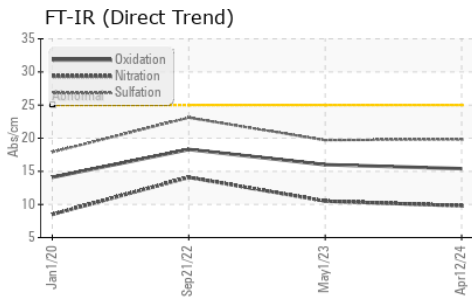
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >25 | 4 | 6 | 7 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 2 | 34 |
| Fuel | | WC Method | >5 | <1.0 | <1.0 | 0.8 |
| Water | | WC Method | >0.2 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.7 | 0.5 | 0.7 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 9.8 | 10.5 | 14.1 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 19.8 | 19.7 | 23.1 |
| 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 | >158 | 1 | 3 | 32 |
| Boron | ppm | ASTM D5185m | 250 | 53 | 35 | 23 |
| Barium | ppm | ASTM D5185m | 10 | 0 | 2 | 0 |
| Molybdenum | ppm | ASTM D5185m | 100 | 77 | 93 | 74 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 450 | 62 | 94 | 64 |
| Calcium | ppm | ASTM D5185m | 3000 | 1966 | 2300 | 2008 |
| Phosphorus | ppm | ASTM D5185m | 1150 | 930 | 1095 | 901 |
| Zinc | ppm | ASTM D5185m | 1350 | 1085 | 1322 | 1066 |
| Sulfur | ppm | ASTM D5185m | 4250 | 3782 | 4232 | 3932 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 15.4 | 16.0 | 18.3 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 8.5 | 6.9 | 6.5 | 7.7 |
| Visc @ 100°C | cSt | ASTM D445 | 14.4 | 13.9 | 13.5 | 10.1 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0932899 **Received** : 30 May 2024
Lab Number : 06195150 **Tested** : 31 May 2024
Unique Number : 11057273 **Diagnosed** : 31 May 2024 - Wes Davis
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)