



Machine Id
CUMMINS MV GLADYS G
Component
Port Genset
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (5 GAL)

RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | MW0038992 | MW0062706 | MW0045802 |
| Sample Date | | Client Info | | 13 Mar 2024 | 24 Oct 2023 | 30 Aug 2023 |
| Machine Age | hrs | Client Info | | 0 | 26357 | 25695 |
| Oil Age | hrs | Client Info | | 500 | 750 | 1000 |
| Filter Age | hrs | Client Info | | 27162 | 750 | 1000 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | SEVERE | SEVERE | SEVERE |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >50 | 8 | 6 | 6 |
| Chromium | ppm | ASTM D5185m | >4 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | >5 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >12 | 2 | 3 | 3 |
| Lead | ppm | ASTM D5185m | >17 | <1 | <1 | <1 |
| Copper | ppm | ASTM D5185m | >70 | 0 | 0 | <1 |
| Tin | ppm | ASTM D5185m | >15 | 0 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

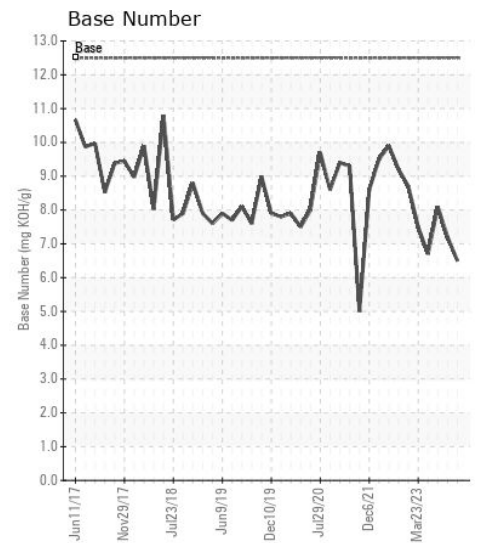
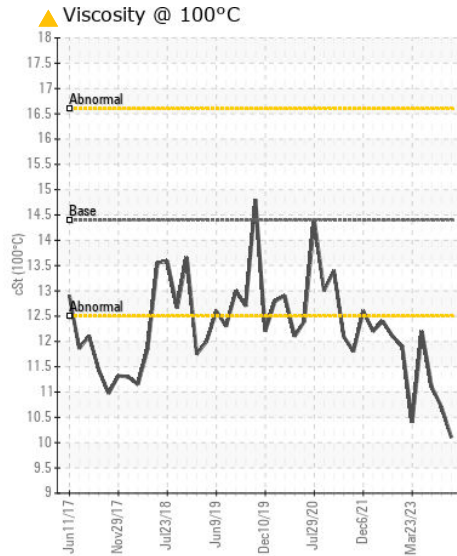
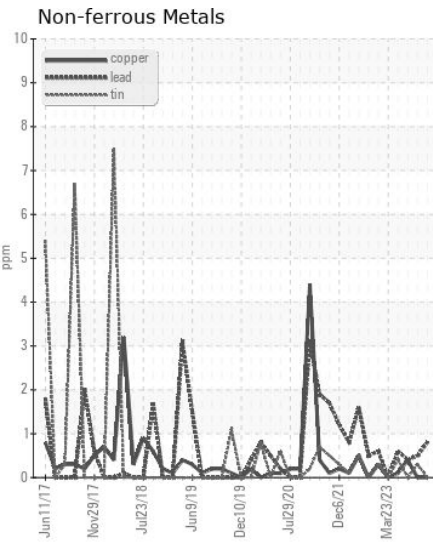
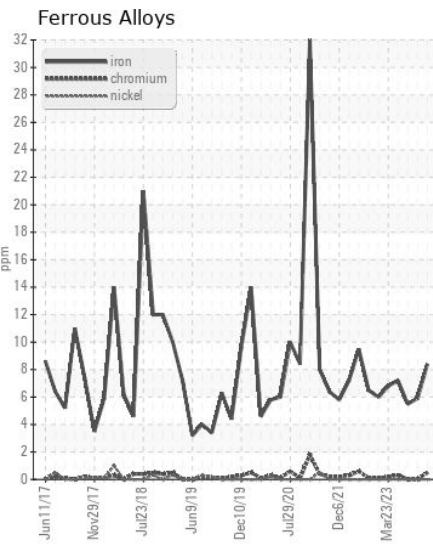
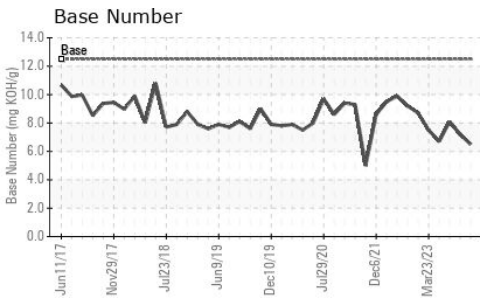
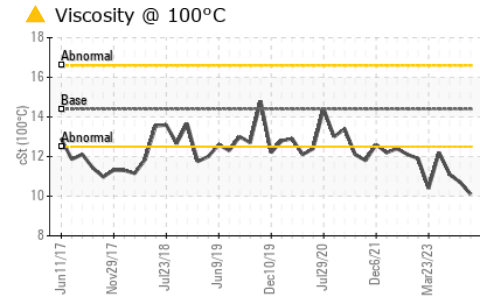
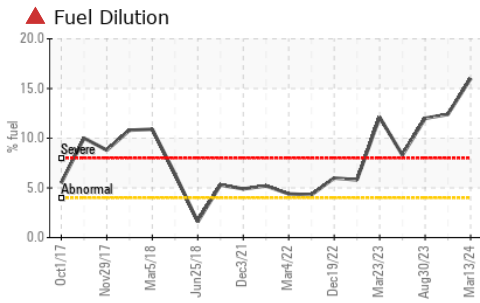
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|---------------|--------|--------|
| Silicon | ppm | ASTM D5185m | >25 | 4 | 5 | 5 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | <1 | <1 |
| Fuel | % | ASTM D3524 | >4.0 | ▲ 16.0 | ▲ 12.4 | ▲ 12.0 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | | 0.1 | 0.1 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 12.4 | 10.6 | 10.5 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 23.5 | 21.9 | 22.7 |
| 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 | >0.1 | NEG | NEG | NEG |

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

| | | | | | | |
|------------------|----------|-------------|------|---------------|--------|--------|
| Sodium | ppm | ASTM D5185m | | 1 | <1 | 2 |
| Boron | ppm | ASTM D5185m | 151 | 209 | 213 | 232 |
| Barium | ppm | ASTM D5185m | 0.4 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 250 | 104 | 99 | 98 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 0 | 542 | 533 | 528 |
| Calcium | ppm | ASTM D5185m | 2046 | 1470 | 1339 | 1518 |
| Phosphorus | ppm | ASTM D5185m | 1043 | 605 | 560 | 575 |
| Zinc | ppm | ASTM D5185m | 943 | 707 | 682 | 728 |
| Sulfur | ppm | ASTM D5185m | 5012 | 2477 | 1992 | 2478 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 26.7 | 21.6 | 21.3 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | 12.5 | 6.5 | 7.2 | 8.1 |
| Visc @ 100°C | cSt | ASTM D445 | 14.4 | ▲ 10.1 | ▲ 10.7 | ▲ 11.1 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : MW0038992

Lab Number : 06123035

Unique Number : 10937186

Test Package : MAR 2 (Additional Tests: PercentFuel)

Received : 19 Mar 2024

Tested : 21 Mar 2024

Diagnosed : 21 Mar 2024 - Don Baldrige

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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