

OIL ANALYSIS REPORT



3708/65-04 CUMMINS/ONAN C150801092 - CENTER GENSET

Sample No: VPA058347
Oil Type: SHELL 15W40

SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-------------|-----|-----|
| Sample Number | VPA058347 | VPA054448 | --- | --- |
| Sample Date | 04 Jun 2024 | 21 Feb 2024 | --- | --- |
| Machine Hours | 1102 | 1336 | --- | --- |
| Oil Hours | 0 | 0 | --- | --- |
| Oil Changed | Changed | Not Changd | --- | --- |
| Sample Status | ABNORMAL | SEVERE | --- | --- |

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 F:

OIL CONDITION

| | | | | | |
|------------------|----------|---------|-------|-----|-----|
| Visc @ 100°C | cSt | ▲ 11.39 | ▲ 7.6 | --- | --- |
| Base Number (BN) | mg KOH/g | ■ 8.7 | ■ 5.8 | --- | --- |
| Oxidation (PA) | % | 62 | 89 | --- | --- |

CONTAMINATION

| | | | | | |
|----------------|-----|-------|--------|-----|-----|
| Water | % | NEG | NEG | --- | --- |
| Soot % | % | ■ 0.2 | ■ 0.8 | --- | --- |
| Nitration (PA) | % | 45 | 72 | --- | --- |
| Sulfation (PA) | % | 53 | 63 | --- | --- |
| Glycol | % | NEG | NEG | --- | --- |
| Fuel | % | ▲ 6.9 | ▲ 25.2 | --- | --- |
| Silicon | ppm | ■ 6 | ■ 13 | --- | --- |
| Sodium | ppm | ■ 9 | ▲ 60 | --- | --- |
| Potassium | ppm | ■ 27 | ▲ 133 | --- | --- |

Diagnosis

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. All component wear rates are normal. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

WEAR METALS

| | | | | | |
|------------|-----|------|-------|-----|-----|
| Iron | ppm | ■ 22 | ▲ 113 | --- | --- |
| Copper | ppm | ■ 6 | ■ 28 | --- | --- |
| Lead | ppm | ■ 0 | ■ <1 | --- | --- |
| Tin | ppm | ■ <1 | ■ <1 | --- | --- |
| Aluminum | ppm | ■ 4 | ■ 4 | --- | --- |
| Chromium | ppm | ■ <1 | ■ 2 | --- | --- |
| Molybdenum | ppm | ■ 57 | ■ 73 | --- | --- |
| Nickel | ppm | ■ 0 | ■ 1 | --- | --- |
| Titanium | ppm | <1 | ■ <1 | --- | --- |
| Silver | ppm | ■ 0 | ■ 0 | --- | --- |
| Manganese | ppm | ■ <1 | ■ 2 | --- | --- |
| Vanadium | ppm | 0 | <1 | --- | --- |

ADDITIVES

| | | | | | |
|------------|-----|--------|--------|-----|-----|
| Calcium | ppm | ■ 1007 | 976 | --- | --- |
| Magnesium | ppm | ■ 814 | ■ 856 | --- | --- |
| Zinc | ppm | ■ 1111 | ■ 1186 | --- | --- |
| Phosphorus | ppm | ■ 929 | ■ 977 | --- | --- |
| Barium | ppm | ■ 2 | ■ 2 | --- | --- |
| Boron | ppm | ■ 8 | 8 | --- | --- |

Depot: VP531377
Unique No: 11069424
Signed: Doug Bogart
Report Date: 06 Jun 2024

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**VOLVO
PENTA**

GRAPHS

