

OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id AC1850 Component Diesel Engine Fluid SAE 5W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

| SAMPLE INFORM | MATION | method | limit/base | current | history1 | history2 |
|---------------|----------|---------------|------------|-------------|----------|----------|
| Sample Number | | Client Info | | PC0082662 | | |
| Sample Date | | Client Info | | 05 Feb 2024 | | |
| Machine Age | hrs | Client Info | | 1282 | | |
| Oil Age | hrs | Client Info | | 500 | | |
| Oil Changed | | Client Info | | Changed | | |
| Sample Status | | | | NORMAL | | |
| CONTAMINATI | ON | method | limit/base | current | history1 | history2 |
| Fuel | | WC Method | >5 | <1.0 | | |
| Water | | WC Method | >0.2 | NEG | | |
| Glycol | | WC Method | | NEG | | |
| WEAR METAL | S | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185(m) | >100 | 5 | | |
| Chromium | ppm | ASTM D5185(m) | >20 | <1 | | |
| Nickel | ppm | ASTM D5185(m) | >4 | <1 | | |
| Titanium | ppm | ASTM D5185(m) | | 0 | | |
| Silver | ppm | ASTM D5185(m) | >3 | 0 | | |
| Aluminum | ppm | ASTM D5185(m) | >20 | 2 | | |
| Lead | ppm | ASTM D5185(m) | >40 | <1 | | |
| Copper | ppm | ASTM D5185(m) | >330 | 3 | | |
| Tin | ppm | ASTM D5185(m) | >15 | <1 | | |
| Antimony | ppm | ASTM D5185(m) | | 0 | | |
| Vanadium | ppm | ASTM D5185(m) | | 0 | | |
| Beryllium | ppm | ASTM D5185(m) | | 0 | | |
| Cadmium | ppm | ASTM D5185(m) | | 0 | | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185(m) | | 30 | | |
| Barium | ppm | ASTM D5185(m) | | 0 | | |
| Molybdenum | ppm | ASTM D5185(m) | | 35 | | |
| Manganese | ppm | ASTM D5185(m) | | 0 | | |
| Magnesium | ppm | ASTM D5185(m) | | 426 | | |
| Calcium | ppm | ASTM D5185(m) | | 1798 | | |
| Phosphorus | ppm | ASTM D5185(m) | | 990 | | |
| Zinc | ppm | ASTM D5185(m) | | 1125 | | |
| Sulfur | ppm | ASTM D5185(m) | | 3234 | | |
| Lithium | ppm | ASTM D5185(m) | | <1 | | |
| CONTAMINAN | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185(m) | >25 | 4 | | |
| Sodium | ppm | ASTM D5185(m) | | 2 | | |
| Potassium | ppm | ASTM D5185(m) | >20 | 1 | | |
| INFRA-RED | | method | limit/base | current | history1 | history2 |
| Soot % | % | ASTM D7844* | >3 | 0 | | |
| Nitration | Abs/cm | ASTM D7624* | >20 | 7.4 | | |
| Sulfation | Abs/.1mm | ASTM D7415* | >30 | 18.2 | | |



100-95 90 Abnorma

cSt (40°C) 85 80 75 70 65 Abnormal 60 Feb5/24

> 100 95 90 Abnorma

70 65 Abnorma 60 Feb5/24

Viscosity @ 40°C

Viscosity @ 40°C

OIL ANALYSIS REPORT

| | FLUID DEGRA | | | limit/base | current | history1 | history |
|-----|--|----------|---------------|------------------|-------------------------|----------|---------|
| | Oxidation | Abs/.1mm | ASTM D7414* | >25 | 13.2 | | |
| | VISUAL | | method | limit/base | current | history1 | history |
| | White Metal | scalar | Visual* | NONE | NONE | | |
| | Yellow Metal | scalar | Visual* | NONE | NONE | | |
| | Precipitate | scalar | Visual* | NONE | NONE | | |
| | Silt | scalar | Visual* | NONE | NONE | | |
| | Debris | scalar | Visual* | NONE | VLITE | | |
| | Sand/Dirt | scalar | Visual* | NONE | NONE | | |
| | Appearance | scalar | Visual* | NORML | NORML | | |
| | Odor | scalar | Visual* | NORML | NORML | | |
| | Emulsified Water | scalar | Visual* | >0.2 | NEG | | |
| | Free Water | scalar | Visual* | | NEG | | |
| | FLUID PROPE | RTIES | method | limit/base | current | history1 | history |
| | Visc @ 40°C | cSt | ASTM D7279(m) | | 96.9 | | |
| | Visc @ 100°C | cSt | ASTM D7279(m) | | 13.8 | | |
| | Viscosity Index (VI) | Scale | ASTM D2270* | | 144 | | |
| | GRAPHS | | | | | | |
| | Iron (ppm) | | | | Lead (ppm) | | |
| | 300 | | | 10 | Severe | | |
| 8 | 200 - Severe | | | E 5 | | | |
| maa | 100 Abnormal | | | đ | ⁰ + Abnormal | | |
| | 0 | | | | o L | | |
| | Feb5/24 | | | Feb5/24 | Feb 5/24 | | |
| | ца. | | | E | E . | | |
| | Aluminum (ppm) | | | | Chromium (p | pm) | |
| | 60 Severe | | | 6 | Servera . | | |
| | 40 - devere | | | 4 udd | 1 | | |
| ſ | 20 - Abnormal | | | - 2 | 0 - Abnormal | | |
| | 0 | | | | | | |
| | Feb 5,24 | | | Feb5/24 | Feb 5/24 | | |
| | | | | LE | | | |
| | Copper (ppm) | | | 8 | Silicon (ppm) | | |
| | 400 Severe Gunermal 300 - | | | 6 | <u>u</u> | | |
| | 틆 200 - | | | <u>특</u> 4 | 0 - Abnormal | | |
| | 100 - | | | 2 | Automa | | |
| | 24 24 0 | | | | 24 0 | | |
| | Feb5/24 | | | Feb5/24 | Feb5/24 | | |
| | Viscosity @ 100° | C | | | Soot % | | |
| | 18 Abnormal | | | 6. | | | |
| | ⊖16 - 9 | | | ₆ ę4. | 0 | | |
| | G 16 0 00 14 ³⁵ 12 Abnomal | | | z.soot | Abnormal | | |
| | | | | | | | |
| | 10 + + 10 | | | .0 Feb5/24 | Feb5/24 | | |
| | .0 | | | 9 | 19 | | |

ISO 17025:2017

Accredited Laboratory Unique Number : 5724647 Diagnosed : 14 Feb 2024 - Wes Davis Test Package : MOB 1 (Additional Tests: KV40, VI, Visual) To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

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