WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL ATTENTION

[715935 MOSAIC]

VOLVO EC480EL 315241

Diesel Engine

VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

| VOLVO ULTRA DIESEL ENGINE OIL 15W40 VD | <u> </u> | - / | | | | | |
|---|-------------------------------|----------------|--------------|-----------|-------------|----------|----------|
| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
| | Sample Number | | Client Info | | VCP451172 | | |
| Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. | Sample Date | | Client Info | | 16 May 2024 | | |
| | Machine Age | hrs | Client Info | | 1347 | | |
| | Oil Age | hrs | Client Info | | 500 | | |
| | Filter Age | hrs | Client Info | | 0 | | |
| | Oil Changed | | Client Info | | Changed | | |
| | Filter Changed | | Client Info | | Changed | | |
| | Sample Status | | | | ATTENTION | | |
| NEAD | | | ACTM DE10Ess | 100 | 40 | | |
| WEAR | Iron | ppm | ASTM D5185m | | 12 | | |
| All component wear rates are normal. | Chromium Nickel | ppm | ASTM D5185m | | 0 | | |
| | | ppm | ASTM D5185m | >2 | 0 | | |
| | Titanium | ppm | ASTM D5185m | 0 | 0 | | |
| | Silver | ppm | ASTM D5185m | | 0 | | |
| | Aluminum | ppm | ASTM D5185m | | 1 | | |
| | Lead | ppm | ASTM D5185m | | <1 | | |
| | Copper | ppm | ASTM D5185m | | 116 | | |
| | Tin | ppm | ASTM D5185m | >15 | 0 | | |
| | Vanadium | ppm | ASTM D5185m | NONE | 0 | | |
| | White Metal | scalar | *Visual | NONE | NONE | | |
| | Yellow Metal | scalar | *Visual | NONE | NONE | | |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | >25 | 14 | | |
| CONTAININATION | Potassium | ppm | ASTM D5185m | | 2 | | |
| Fuel content negligible. There is no indication of any contamination in the oil. | Fuel | % | ASTM D3524 | | 0.3 | | |
| | Water | | WC Method | | NEG | | |
| | Glycol | | WC Method | | NEG | | |
| | Soot % | % | *ASTM D7844 | >3 | 0.1 | | |
| | Nitration | Abs/cm | *ASTM D7624 | >20 | 11.0 | | |
| | Sulfation | Abs/.1mm | *ASTM D7415 | | 23.6 | | |
| | Silt | scalar | *Visual | NONE | NONE | | |
| | Debris | scalar | *Visual | NONE | NONE | | |
| | Sand/Dirt | scalar | *Visual | NONE | NONE | | |
| | Appearance | scalar | *Visual | NORML | NORML | | |
| | Odor | scalar | *Visual | NORML | NORML | | |
| | Emulsified Water | scalar | *Visual | >0.2 | NEG | | |
| | | | | | | | |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | | 3 | | |
| The oil viscosity is lower than normal. The BN result indicates that | Boron | ppm | ASTM D5185m | | 3 | | |
| there is suitable alkalinity remaining in the oil. Confirm oil type. | Barium | ppm | ASTM D5185m | | 0 | | |
| | Molybdenum | ppm | ASTM D5185m | | 55 | | |
| | Manganese | ppm | ASTM D5185m | | 2 | | |
| | Magnesium | ppm | ASTM D5185m | | 128 | | |
| | Calcium | ppm | ASTM D5185m | 2057 | 2056 | | |
| | Phosphorus | ppm | ASTM D5185m | 935 | 847 | | |
| | Zinc | ppm | ASTM D5185m | 1223 | 997 | | |
| | Sulfur | ppm | ASTM D5185m | 4079 | 3168 | | |
| | | | | ~= | 40.5 | | |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 19.5 | | |
| | Oxidation Base Number (BN) | | | | 19.5 4.2 | | |





Certificate L2367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Lab Number : 06214323

: VCP451172 Unique Number: 11087187

Received **Tested**

Diagnosed Test Package: MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

: 19 Jun 2024 : 21 Jun 2024

: 21 Jun 2024 - Don Baldridge

ALTA EQUIPMENT/FLAGLER CONSTRUCTION EQUIPMENT LLC 8418 PALM RIVER ROAD

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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)

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