



CONSTRUCTION EQUIPMENT

TMR-OKEECHOBEE 594712 VOLVO L180H 4823 - DIESEL ENGINE



Sample No: VCP415911
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: 594712



SAMPLE INFORMATION

| | | | | |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | VCP415911 | VCP408042 | VCP408045 | VCP398471 |
| Sample Date | 18 Aug 2023 | 06 Jun 2023 | 01 May 2023 | 07 Mar 2023 |
| Machine Hours | 14630 | 14109 | 13877 | 13615 |
| Oil Hours | 0 | 0 | 0 | 0 |
| Oil Changed | Changed | Changed | Changed | Changed |
| Sample Status | NORMAL | NORMAL | NORMAL | NORMAL |



TRADEMARK METALS RECYCLING - OKEECHOBEE
 9800 NE 128TH AVE
 OKEECHOBEE, FL
 US 34972
 Contact: RYAN BOWDEN



OIL CONDITION

| | | | | | |
|------------------|----------|-------------|------|------|------|
| Visc @ 100°C | cSt | 12.7 | 12.6 | 12.7 | 13.0 |
| Base Number (BN) | mg KOH/g | 9.8 | 10.1 | 10.4 | 9.5 |
| Oxidation (PA) | % | 72 | 83 | 75 | 64 |

T: (863)467-9810
 F: (863)467-9814

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



CONTAMINATION

| | | | | | |
|----------------|-----|----------------|------|------|------|
| Soot % | % | 0.1 | 0.1 | 0.1 | 0.2 |
| Nitration (PA) | % | 43 | 48 | 48 | 55 |
| Sulfation (PA) | % | 57 | 61 | 59 | 55 |
| Glycol | % | NEG | NEG | NEG | NEG |
| Fuel | % | <1.0 | <1.0 | <1.0 | <1.0 |
| Silicon | ppm | 4 | 3 | 4 | <1 |
| Sodium | ppm | <1 | 2 | 2 | 0 |
| Potassium | ppm | 1 | 2 | 2 | 1 |



WEAR METALS

| | | | | | |
|------------|-----|--------------|----|----|----|
| Iron | ppm | 2 | 2 | 3 | 4 |
| Copper | ppm | <1 | 0 | <1 | 5 |
| Lead | ppm | 0 | <1 | 1 | <1 |
| Tin | ppm | 0 | 0 | <1 | <1 |
| Aluminum | ppm | <1 | 2 | 0 | 2 |
| Chromium | ppm | 0 | <1 | <1 | 0 |
| Molybdenum | ppm | 51 | 42 | 45 | 56 |
| Nickel | ppm | 0 | <1 | <1 | <1 |
| Titanium | ppm | 0 | 0 | 0 | 0 |
| Silver | ppm | 0 | 0 | 0 | 0 |
| Manganese | ppm | <1 | <1 | <1 | <1 |
| Vanadium | ppm | 0 | 0 | <1 | 0 |



ADDITIVES

| | | | | | |
|------------|-----|-------------|------|------|------|
| Calcium | ppm | 1681 | 1687 | 1518 | 1301 |
| Magnesium | ppm | 489 | 522 | 572 | 786 |
| Zinc | ppm | 1083 | 1177 | 1134 | 1183 |
| Phosphorus | ppm | 918 | 960 | 933 | 990 |
| Barium | ppm | 0 | 0 | 0 | 2 |
| Boron | ppm | 113 | 51 | 37 | 8 |

Depot: TRAOKE
Unique No: 10617208
Signed: Wes Davis
Report Date: 24 Aug 2023



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VOLVO GRAPHS

