



CONSTRUCTION EQUIPMENT

SWA319806 VOLVO L180H 3738 - DIESEL ENGINE



Sample No: VCP386387
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SWA319806



SAMPLE INFORMATION

| | | | | |
|---------------|--------------------|-------------|-------------|-------------|
| Sample Number | VCP386387 | VCP383110 | VCP353801 | VCP328761 |
| Sample Date | 02 Aug 2023 | 05 Apr 2023 | 06 May 2022 | 20 Aug 2021 |
| Machine Hours | 5583 | 4995 | 4008 | 3471 |
| Oil Hours | 0 | 0 | 0 | 0 |
| Oil Changed | Changed | Changed | Changed | N/A |
| Sample Status | NORMAL | NORMAL | NORMAL | ATTENTION |

ALTA EQUIPMENT

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OIL CONDITION

| | | | | | |
|------------------|----------|-------------|------|------|--------|
| Visc @ 100°C | cSt | 12.4 | 12.6 | 12.6 | ▲ 12.1 |
| Base Number (BN) | mg KOH/g | 9.3 | 8.8 | 9.6 | --- |
| Oxidation (PA) | % | 80 | 74 | 80 | 81 |



CONTAMINATION

| | | | | | |
|----------------|-----|----------------|------|------|------|
| Soot % | % | 0.1 | 0.1 | 0.2 | 0.1 |
| Nitration (PA) | % | 63 | 54 | 63 | 59 |
| Sulfation (PA) | % | 60 | 54 | 60 | 61 |
| Glycol | % | NEG | NEG | NEG | NEG |
| Fuel | % | <1.0 | <1.0 | <1.0 | <1.0 |
| Silicon | ppm | 5 | 6 | 4 | 3 |
| Sodium | ppm | 2 | 2 | 1 | <1 |
| Potassium | ppm | 0 | 2 | <1 | 0 |



WEAR METALS

| | | | | | |
|------------|-----|--------------|----|----|----|
| Iron | ppm | 4 | 5 | 6 | 8 |
| Copper | ppm | <1 | <1 | <1 | <1 |
| Lead | ppm | 0 | <1 | <1 | <1 |
| Tin | ppm | <1 | <1 | <1 | <1 |
| Aluminum | ppm | 1 | 0 | 2 | 1 |
| Chromium | ppm | <1 | <1 | <1 | <1 |
| Molybdenum | ppm | 41 | 44 | 36 | 39 |
| Nickel | ppm | 0 | 0 | 0 | 0 |
| Titanium | ppm | 0 | 0 | 0 | 0 |
| Silver | ppm | 0 | 0 | 0 | <1 |
| Manganese | ppm | <1 | <1 | <1 | <1 |
| Vanadium | ppm | 0 | 0 | 0 | 0 |



ADDITIVES

| | | | | | |
|------------|-----|-------------|------|------|------|
| Calcium | ppm | 1941 | 1561 | 1729 | 1585 |
| Magnesium | ppm | 530 | 537 | 517 | 486 |
| Zinc | ppm | 1079 | 1113 | 1194 | 1038 |
| Phosphorus | ppm | 898 | 933 | 983 | 870 |
| Barium | ppm | 0 | 0 | 0 | 0 |
| Boron | ppm | 50 | 48 | 44 | 40 |

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.

Depot: VOLV00142
Unique No: 10602705
Signed: Wes Davis
Report Date: 14 Aug 2023



CONSTRUCTION EQUIPMENT



VOLVO GRAPHS

