# CONSTRUCTION EQUIPMENT
## SPM581116    VOLVO L150H 7135 - DIESEL ENGINE

**Sample No:**   VCP422997

**Oil Type:**   DIESEL ENGINE OIL SAE 15W40

**Job No:**   SPM581116

### SAMPLE INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| Sample Number | | **VCP422997** | VCP420066 | VCP387159 | --- |
| Sample Date | | **25 Aug 2023** | 24 Apr 2023 | 22 Feb 2023 | --- |
| Machine Hours | | **4044** | 562 | 276 | --- |
| Oil Hours | | **0** | 0 | 0 | --- |
| Oil Changed | | **Changed** | Changed | Not Changd | --- |
| Sample Status | | **NORMAL** | ABNORMAL | ATTENTION | --- |

### OIL CONDITION

| | | | | | |
|---|---|---|---|---|---|
| Visc @ 100°C | cSt | ■ **13.6** | ▲ 11.2 | ▲ 11.1 | --- |
| Base Number (BN) | mg KOH/g | ■ **9.8** | ■ 5.0 | ■ 10.0 | --- |
| Oxidation (PA) | % | **56** | 61 | 53 | --- |

### CONTAMINATION

| | | | | | |
|---|---|---|---|---|---|
| Soot % | % | ■ **0.1** | ■ 0.1 | ■ 0.1 | --- |
| Nitration (PA) | % | **53** | 73 | 48 | --- |
| Sulfation (PA) | % | **51** | 52 | 50 | --- |
| Glycol | % | **NEG** | NEG | NEG | --- |
| Fuel | % | **<1.0** | <1.0 | ■ 0.5 | --- |
| Silicon | ppm | ■ **3** | ■ 21 | ■ 2 | --- |
| Sodium | ppm | ■ **2** | ■ 2 | ■ 0 | --- |
| Potassium | ppm | ■ **<1** | ■ 3 | ■ 1 | --- |

### WEAR METALS

| | | | | | |
|---|---|---|---|---|---|
| Iron | ppm | ■ **3** | ■ 8 | ■ 7 | --- |
| Copper | ppm | ■ **2** | ▲ 221 | ■ 29 | --- |
| Lead | ppm | ■ **0** | ■ <1 | ■ <1 | --- |
| Tin | ppm | ■ **<1** | ■ 2 | ■ <1 | --- |
| Aluminum | ppm | ■ **<1** | ■ 2 | ■ 2 | --- |
| Chromium | ppm | ■ **<1** | ■ 0 | ■ 0 | --- |
| Molybdenum | ppm | ■ **63** | ■ 76 | ■ 47 | --- |
| Nickel | ppm | ■ **0** | ■ 0 | ■ 0 | --- |
| Titanium | ppm | ■ **0** | ■ 0 | ■ <1 | --- |
| Silver | ppm | ■ **0** | ■ 0 | ■ 0 | --- |
| Manganese | ppm | ■ **<1** | ■ 3 | ■ <1 | --- |
| Vanadium | ppm | **0** | 0 | 0 | --- |

### ADDITIVES

| | | | | | |
|---|---|---|---|---|---|
| Calcium | ppm | ■ **1107** | ■ 1968 | ■ 1348 | --- |
| Magnesium | ppm | ■ **1047** | ■ 40 | ■ 588 | --- |
| Zinc | ppm | ■ **1366** | ■ 1166 | ■ 1065 | --- |
| Phosphorus | ppm | ■ **1105** | ■ 909 | ■ 935 | --- |
| Barium | ppm | ■ **0** | ■ 0 | ■ 0 | --- |
| Boron | ppm | ■ **3** | ■ 45 | ■ 23 | --- |

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## 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:** | WASGARIN |
| **Unique No:** | 10632409 |
| **Signed:** | Wes Davis |
| **Report Date:** | 05 Sep 2023 |

## GRAPHS

### Iron (ppm)

### Lead (ppm)

### Aluminum (ppm)

### Chromium (ppm)

### Copper (ppm)

### Silicon (ppm)

### Viscosity @ 100°C

### Base Number