



# CONSTRUCTION EQUIPMENT

SPM702818 VOLVO EC550 310286 - DIESEL ENGINE



**Sample No:** VCP447013  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3  
**Job No:** SPM702818



## SAMPLE INFORMATION

|               |             |             |     |     |
|---------------|-------------|-------------|-----|-----|
| Sample Number | VCP447013   | VCP438139   | --- | --- |
| Sample Date   | 25 Apr 2024 | 05 Jan 2024 | --- | --- |
| Machine Hours | 1485        | 675         | --- | --- |
| Oil Hours     | 0           | 0           | --- | --- |
| Oil Changed   | Changed     | Changed     | --- | --- |
| Sample Status | ABNORMAL    | ABNORMAL    | --- | --- |

**ALTA EQUIPMENT COMPANY**  
 5210 REESE ROAD  
 DAVIE, FL  
 US 33314  
 Contact: N. FACEY  
 nfacey@altaequipfl.com  
 T: (954)581-4744  
 F: (954)583-0318



## OIL CONDITION

|                  |          |        |        |     |     |
|------------------|----------|--------|--------|-----|-----|
| Visc @ 100°C     | cSt      | ● 11.9 | ● 10.7 | --- | --- |
| Base Number (BN) | mg KOH/g | ■ 6.3  | ■ 4.9  | --- | --- |
| Oxidation (PA)   | %        | 68     | 67     | --- | --- |

## Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. The copper level has decreased, but is still abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



## CONTAMINATION

|                |     |       |       |     |     |
|----------------|-----|-------|-------|-----|-----|
| Water          | %   | NEG   | NEG   | --- | --- |
| Soot %         | %   | ■ 0.3 | ■ 0.2 | --- | --- |
| Nitration (PA) | %   | 73    | 83    | --- | --- |
| Sulfation (PA) | %   | 59    | 60    | --- | --- |
| Glycol         | %   | NEG   | NEG   | --- | --- |
| Fuel           | %   | <1.0  | ■ 0.4 | --- | --- |
| Silicon        | ppm | ■ 12  | ■ 26  | --- | --- |
| Sodium         | ppm | ■ 1   | ■ 3   | --- | --- |
| Potassium      | ppm | ■ 2   | ■ 3   | --- | --- |



## WEAR METALS

|            |     |      |       |     |     |
|------------|-----|------|-------|-----|-----|
| Iron       | ppm | ■ 12 | ■ 12  | --- | --- |
| Copper     | ppm | ▲ 46 | ▲ 149 | --- | --- |
| Lead       | ppm | ■ <1 | ■ 2   | --- | --- |
| Tin        | ppm | ■ 1  | ■ 2   | --- | --- |
| Aluminum   | ppm | ■ 2  | ■ <1  | --- | --- |
| Chromium   | ppm | ■ <1 | ■ 0   | --- | --- |
| Molybdenum | ppm | ■ 63 | ■ 76  | --- | --- |
| Nickel     | ppm | ■ <1 | ■ 0   | --- | --- |
| Titanium   | ppm | <1   | 0     | --- | --- |
| Silver     | ppm | ■ 0  | ■ 0   | --- | --- |
| Manganese  | ppm | ■ <1 | ■ 1   | --- | --- |
| Vanadium   | ppm | <1   | 0     | --- | --- |



## ADDITIVES

|            |     |        |        |     |     |
|------------|-----|--------|--------|-----|-----|
| Calcium    | ppm | ■ 1188 | ■ 2050 | --- | --- |
| Magnesium  | ppm | ■ 884  | 78     | --- | --- |
| Zinc       | ppm | ■ 1178 | ■ 1200 | --- | --- |
| Phosphorus | ppm | ■ 886  | ■ 893  | --- | --- |
| Barium     | ppm | ■ 0    | ■ 0    | --- | --- |
| Boron      | ppm | ■ 0    | ■ 7    | --- | --- |

**Depot:** VOLVO0095  
**Unique No:** 11004792  
**Signed:** Don Baldrige  
**Report Date:** 01 May 2024



# CONSTRUCTION EQUIPMENT



## GRAPHS

