

# CONSTRUCTION EQUIPMENT VOLVO A45G 752203 - DIESEL ENGINE



Sample No: VCP436750

Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

Job No:

| VOLVO            |            |               |  |  |  |
|------------------|------------|---------------|--|--|--|
| SAMPLE II        | NFORMATION |               |  |  |  |
| Sample Number    | -          | VCP436750     |  |  |  |
| Sample Date      |            | 09 Apr 2024   |  |  |  |
| Machine Hours    |            | 654           |  |  |  |
| Oil Hours        |            | 0             |  |  |  |
| Oil Changed      |            | Changed       |  |  |  |
| Sample Status    |            | ABNORMAL      |  |  |  |
|                  |            |               |  |  |  |
| OIL CONDI        | TION       |               |  |  |  |
| Visc @ 100°C     | cSt        | <b>10.9</b>   |  |  |  |
| Base Number (BN) |            | ■ 5.3         |  |  |  |
| Oxidation (PA)   | %          | 59            |  |  |  |
| Oxidation (1 A)  | 70         | 33            |  |  |  |
| VOLVO            |            |               |  |  |  |
| CONTAMIN         | NATION     |               |  |  |  |
| Water            | %          | NEG           |  |  |  |
| Soot %           | %          | ■ 0.4         |  |  |  |
| Nitration (PA)   | %          | 82            |  |  |  |
| Sulfation (PA)   | %          | 57            |  |  |  |
| Glycol           | %          | NEG           |  |  |  |
| Fuel             | %          | ■ 0.3         |  |  |  |
| Silicon          | ppm        | ■33           |  |  |  |
| Sodium           | ppm        | <b>2</b>      |  |  |  |
| Potassium        | ppm        | <b>4</b>      |  |  |  |
| VOLVO            |            |               |  |  |  |
| WEAR METALS      |            |               |  |  |  |
| Iron             | ppm        | <b>28</b>     |  |  |  |
| Copper           | ppm        | <b>△</b> 356  |  |  |  |
| Lead             | ppm        | <b>2</b>      |  |  |  |
| Tin              | ppm        | <b>6</b>      |  |  |  |
| Aluminum         | ppm        | <b>4</b>      |  |  |  |
| Chromium         | ppm        | <b>2</b>      |  |  |  |
| Molybdenum       | ppm        | <b>97</b>     |  |  |  |
| Nickel           | ppm        | <u>^</u> 8    |  |  |  |
| Titanium         | ppm        | <1            |  |  |  |
| Silver           | ppm        | ■0            |  |  |  |
| Manganese        | ppm        | <b>■</b> 2    |  |  |  |
| Vanadium         | ppm        | <1            |  |  |  |
| ADDITIVE         | 7          |               |  |  |  |
| _                |            | =2474         |  |  |  |
| Calcium          | ppm        | <b>2474</b>   |  |  |  |
| Magnesium        | ppm        | <b>27</b>     |  |  |  |
| Zinc             | ppm        | <b>1299</b>   |  |  |  |
| Phosphorus       | ppm        | ■ 1122<br>■ 0 |  |  |  |
| Barium           | ppm        | <b>0</b>      |  |  |  |
| Boron            | ppm        | <b>■</b> 37   |  |  |  |



#### **ALTA EQUIPMENT COMPANY**

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### Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is abnormal. The nickel level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other metal levels are typical for a new component breaking in. Fuel content negligible. Elemental level of silicon (Si) above normal indicating ingress of seal material. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Depot:VOLVO0090Unique No:10978454Signed:Jonathan HesterReport Date:19 Apr 2024

Contact/Location: TODD LARK - VOLVO0090



## **CONSTRUCTION EQUIPMENT**





