



## PETER HUYSING PATRICK/502357-5750 ONAN A210866246 - CENTER GENSET

Sample No: VPA060398

Oil Type: VOLVO VDS-4.5 Premium Motor Oil 15W40

| SAMPLE INFORMAT  | TION     |              |               |      |
|------------------|----------|--------------|---------------|------|
|                  |          |              | 1/24040400    |      |
| Sample Number    |          | VPA060398    | VPA043123     | <br> |
| Sample Date      |          | 11 Sep 2023  | 29 Sep 2022   | <br> |
| Machine Hours    |          | 136          | 0             | <br> |
| Oil Hours        |          | 0            | 0             | <br> |
| Oil Changed      |          | Changed      | Changed       | <br> |
| Sample Status    |          | NORMAL       | NORMAL        | <br> |
| OIL CONDITION    |          |              |               |      |
| Visc @ 100°C     | cSt      | <b>13.0</b>  | <b>□</b> 12.7 | <br> |
| Base Number (BN) | mg KOH/g | 9.4          | 10.9          | <br> |
| Oxidation (PA)   | %        | 55           | 70            | <br> |
| ` '              |          |              |               |      |
| CONTAMINATION    |          |              |               |      |
| Soot %           | %        | <b>0.1</b>   | ■ 0.1         | <br> |
| Nitration (PA)   | %        | 44           | 66            | <br> |
| Sulfation (PA)   | %        | 50           | 57            | <br> |
| Glycol           | %        | NEG          | NEG           | <br> |
| Fuel             | %        | <1.0         | <1.0          | <br> |
| Silicon          | ppm      | <b>■10</b>   | 22            | <br> |
| Sodium           | ppm      | <b>■</b> 3   | <b>1</b> 4    | <br> |
| Potassium        | ppm      | <b>■</b> <1  | 2             | <br> |
| Fotassium        | ррпп     |              |               | <br> |
| WEAR METALS      |          |              |               |      |
| Iron             | ppm      | <b>4</b>     | <b>■</b> 8    | <br> |
| Copper           | ppm      | <b>3</b>     | <b>1</b> 0    | <br> |
| Lead             | ppm      | ■0           | <u> </u>      | <br> |
| Tin              | ppm      | <b>■</b> <1  | 1             | <br> |
| Aluminum         | ppm      | <b>3</b>     | <b>1</b> 2    | <br> |
| Chromium         | ppm      | <b>0</b>     | <1            | <br> |
| Molybdenum       | ppm      | <b>■</b> 60  | 53            | <br> |
| Nickel           | ppm      | ■0           | 1             | <br> |
| Titanium         |          | <1           | <1            | <br> |
| Silver           | ppm      | 0            | 0             | <br> |
|                  | ppm      | _            |               |      |
| Manganese        | ppm      | <b>1</b> < 1 | 2             | <br> |
| Vanadium         | ppm      | 0            | <1            | <br> |
| ZAVITIDDA        |          |              |               |      |
| Calcium          | ppm      | <b>1241</b>  | 1753          | <br> |
| Magnesium        | ppm      | 974          | 628           | <br> |
| Zinc             | ppm      | <b>1203</b>  | 950           | <br> |
| Phosphorus       | ppm      | <b>1032</b>  | 793           | <br> |
| Barium           | ppm      | ■0           | 0             | <br> |
| Boron            | ppm      | <b>10</b>    | 41            | <br> |
|                  | 1-1      |              |               |      |

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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:
 VP794951

 Unique No:
 10648340

 Signed:
 Sean Felton

 Report Date:
 19 Sep 2023

## **OIL ANALYSIS REPORT**



