

# OIL ANALYSIS REPORT

# VOLVO PENTA

## NADINE URUIOLI TRANS BAY CABLE VOLVO PENTA A 1166299 - PORT DIESEL ENGINE

Sample No: VPA053167

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

### SAMPLE INFORMATION

|               |             |     |     |     |
|---------------|-------------|-----|-----|-----|
| Sample Number | VPA053167   | --- | --- | --- |
| Sample Date   | 26 Apr 2024 | --- | --- | --- |
| Machine Hours | 50          | --- | --- | --- |
| Oil Hours     | 50          | --- | --- | --- |
| Oil Changed   | Changed     | --- | --- | --- |
| Sample Status | NORMAL      | --- | --- | --- |

### OIL CONDITION

|                  |          |         |     |     |     |
|------------------|----------|---------|-----|-----|-----|
| Visc @ 100°C     | cSt      | █ 13.26 | --- | --- | --- |
| Base Number (BN) | mg KOH/g | █ 9.9   | --- | --- | --- |
| Oxidation (PA)   | %        | 57      | --- | --- | --- |

### CONTAMINATION

|                |     |       |     |     |     |
|----------------|-----|-------|-----|-----|-----|
| Water          | %   | NEG   | --- | --- | --- |
| Soot %         | %   | █ 0.1 | --- | --- | --- |
| Nitration (PA) | %   | 42    | --- | --- | --- |
| Sulfation (PA) | %   | 52    | --- | --- | --- |
| Glycol         | %   | NEG   | --- | --- | --- |
| Fuel           | %   | <1.0  | --- | --- | --- |
| Silicon        | ppm | █ 21  | --- | --- | --- |
| Sodium         | ppm | █ 2   | --- | --- | --- |
| Potassium      | ppm | █ 2   | --- | --- | --- |

### WEAR METALS

|            |     |      |     |     |     |
|------------|-----|------|-----|-----|-----|
| Iron       | ppm | █ 10 | --- | --- | --- |
| Copper     | ppm | █ 12 | --- | --- | --- |
| Lead       | ppm | █ 5  | --- | --- | --- |
| Tin        | ppm | █ 3  | --- | --- | --- |
| Aluminum   | ppm | █ 5  | --- | --- | --- |
| Chromium   | ppm | █ 1  | --- | --- | --- |
| Molybdenum | ppm | █ 59 | --- | --- | --- |
| Nickel     | ppm | █ 1  | --- | --- | --- |
| Titanium   | ppm | █ <1 | --- | --- | --- |
| Silver     | ppm | █ 0  | --- | --- | --- |
| Manganese  | ppm | █ 1  | --- | --- | --- |
| Vanadium   | ppm | 0    | --- | --- | --- |

### ADDITIVES

|            |     |        |     |     |     |
|------------|-----|--------|-----|-----|-----|
| Calcium    | ppm | █ 1166 | --- | --- | --- |
| Magnesium  | ppm | █ 878  | --- | --- | --- |
| Zinc       | ppm | █ 1198 | --- | --- | --- |
| Phosphorus | ppm | █ 953  | --- | --- | --- |
| Barium     | ppm | █ 0    | --- | --- | --- |
| Boron      | ppm | █ 12   | --- | --- | --- |

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### Diagnosis

No corrective action is recommended at this time. 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 acceptable for the time in service.

Depot: VP152741  
Unique No: 11019151  
Signed: Doug Bogart  
Report Date: 08 May 2024

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## GRAPHS

