

# OIL ANALYSIS REPORT

# VOLVO PENTA

**502120 ONAN I020415348 - GENSET**

**Sample No:** VPA055653

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

## SAMPLE INFORMATION

|               |             |     |     |     |
|---------------|-------------|-----|-----|-----|
| Sample Number | VPA055653   | --- | --- | --- |
| Sample Date   | 28 Jun 2023 | --- | --- | --- |
| Machine Hours | 575         | --- | --- | --- |
| Oil Hours     | 0           | --- | --- | --- |
| Oil Changed   | Changed     | --- | --- | --- |
| Sample Status | NORMAL      | --- | --- | --- |

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## OIL CONDITION

|                  |          |        |     |     |     |
|------------------|----------|--------|-----|-----|-----|
| Visc @ 100°C     | cSt      | █ 12.8 | --- | --- | --- |
| Base Number (BN) | mg KOH/g | █ 9.5  | --- | --- | --- |
| Oxidation (PA)   | %        | 59     | --- | --- | --- |

## CONTAMINATION

|                |     |       |     |     |     |
|----------------|-----|-------|-----|-----|-----|
| Soot %         | %   | █ 0.1 | --- | --- | --- |
| Nitration (PA) | %   | 43    | --- | --- | --- |
| Sulfation (PA) | %   | 52    | --- | --- | --- |
| Glycol         | %   | NEG   | --- | --- | --- |
| Fuel           | %   | < 1.0 | --- | --- | --- |
| Silicon        | ppm | █ 4   | --- | --- | --- |
| Sodium         | ppm | █ 2   | --- | --- | --- |
| Potassium      | ppm | █ < 1 | --- | --- | --- |

## 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.

## WEAR METALS

|            |     |       |     |     |     |
|------------|-----|-------|-----|-----|-----|
| Iron       | ppm | █ 5   | --- | --- | --- |
| Copper     | ppm | █ < 1 | --- | --- | --- |
| Lead       | ppm | █ 0   | --- | --- | --- |
| Tin        | ppm | █ < 1 | --- | --- | --- |
| Aluminum   | ppm | █ < 1 | --- | --- | --- |
| Chromium   | ppm | █ < 1 | --- | --- | --- |
| Molybdenum | ppm | █ 70  | --- | --- | --- |
| Nickel     | ppm | █ 0   | --- | --- | --- |
| Titanium   | ppm | < 1   | --- | --- | --- |
| Silver     | ppm | █ 0   | --- | --- | --- |
| Manganese  | ppm | █ 0   | --- | --- | --- |
| Vanadium   | ppm | 0     | --- | --- | --- |

## ADDITIVES

|            |     |        |     |     |     |
|------------|-----|--------|-----|-----|-----|
| Calcium    | ppm | █ 1184 | --- | --- | --- |
| Magnesium  | ppm | █ 792  | --- | --- | --- |
| Zinc       | ppm | █ 1179 | --- | --- | --- |
| Phosphorus | ppm | █ 962  | --- | --- | --- |
| Barium     | ppm | █ 0    | --- | --- | --- |
| Boron      | ppm | █ 44   | --- | --- | --- |

**Depot:** VP794951  
**Unique No:** 10549110  
**Signed:** Don Baldrige  
**Report Date:** 11 Jul 2023

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## GRAPHS

