

# OIL ANALYSIS REPORT

# VOLVO PENTA

**TONY WHITLOCK 3965 VOLVO PENTA 2071189499 - STARBOARD DIESEL ENGINE**

**Sample No:** VPA062979

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

## SAMPLE INFORMATION

|               |             |     |     |     |
|---------------|-------------|-----|-----|-----|
| Sample Number | VPA062979   | --- | --- | --- |
| Sample Date   | 21 Jun 2024 | --- | --- | --- |
| Machine Hours | 833         | --- | --- | --- |
| Oil Hours     | 0           | --- | --- | --- |
| Oil Changed   | Not Changd  | --- | --- | --- |
| Sample Status | NORMAL      | --- | --- | --- |

## WESTERN BRANCH DIESEL

6881 BULLDOG DR N

CHARLESTON, SC

US 29406

Contact: CHRIS BRADSHAW

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## OIL CONDITION

|                  |          |        |     |     |     |
|------------------|----------|--------|-----|-----|-----|
| Visc @ 100°C     | cSt      | █ 14.0 | --- | --- | --- |
| Base Number (BN) | mg KOH/g | █ 8.6  | --- | --- | --- |
| Oxidation (PA)   | %        | 66     | --- | --- | --- |

## CONTAMINATION

|                |     |       |     |     |     |
|----------------|-----|-------|-----|-----|-----|
| Water          | %   | NEG   | --- | --- | --- |
| Soot %         | %   | █ 0.5 | --- | --- | --- |
| Nitration (PA) | %   | 63    | --- | --- | --- |
| Sulfation (PA) | %   | 55    | --- | --- | --- |
| Glycol         | %   | NEG   | --- | --- | --- |
| Fuel           | %   | < 1.0 | --- | --- | --- |
| Silicon        | ppm | █ 6   | --- | --- | --- |
| Sodium         | ppm | █ 65  | --- | --- | --- |
| Potassium      | ppm | █ 5   | --- | --- | --- |

## 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 | █ 55  | --- | --- | --- |
| Copper     | ppm | █ 23  | --- | --- | --- |
| Lead       | ppm | █ 6   | --- | --- | --- |
| Tin        | ppm | █ < 1 | --- | --- | --- |
| Aluminum   | ppm | █ 28  | --- | --- | --- |
| Chromium   | ppm | █ 3   | --- | --- | --- |
| Molybdenum | ppm | █ 48  | --- | --- | --- |
| Nickel     | ppm | █ 3   | --- | --- | --- |
| Titanium   | ppm | █ 0   | --- | --- | --- |
| Silver     | ppm | █ 0   | --- | --- | --- |
| Manganese  | ppm | █ < 1 | --- | --- | --- |
| Vanadium   | ppm | 0     | --- | --- | --- |

## ADDITIVES

|            |     |        |     |     |     |
|------------|-----|--------|-----|-----|-----|
| Calcium    | ppm | █ 1460 | --- | --- | --- |
| Magnesium  | ppm | █ 491  | --- | --- | --- |
| Zinc       | ppm | █ 1165 | --- | --- | --- |
| Phosphorus | ppm | █ 878  | --- | --- | --- |
| Barium     | ppm | █ 0    | --- | --- | --- |
| Boron      | ppm | █ 46   | --- | --- | --- |

**Depot:** VP1165983

**Unique No:** 11098937

**Signed:** Jonathan Hester

**Report Date:** 27 Jun 2024

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## GRAPHS

