

# OIL ANALYSIS REPORT



## GREGORY BYRD SAM/503107 VOLVO PENTA 7008446503 - STARBOARD DIESEL ENGINE

**Sample No:** VPA058913  
**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

### SAMPLE INFORMATION

|               |             |     |     |     |
|---------------|-------------|-----|-----|-----|
| Sample Number | VPA058913   | --- | --- | --- |
| Sample Date   | 20 May 2024 | --- | --- | --- |
| Machine Hours | 46          | --- | --- | --- |
| Oil Hours     | 46          | --- | --- | --- |
| Oil Changed   | Changed     | --- | --- | --- |
| Sample Status | ATTENTION   | --- | --- | --- |

**Endor Marine LLC - Coastal Marine - 152124**  
 4300 11th Ave. NW  
 SEATTLE, WA  
 US 98107  
 Contact: WILLOW YANARELLA  
 service@coastalmarineengine.com  
 T: (206)784-3703  
 F: (206)784-8823

### OIL CONDITION

|                  |          |        |     |     |     |
|------------------|----------|--------|-----|-----|-----|
| Visc @ 100°C     | cSt      | ● 11.6 | --- | --- | --- |
| Base Number (BN) | mg KOH/g | ■ 5.9  | --- | --- | --- |
| Oxidation (PA)   | %        | 52     | --- | --- | --- |

### CONTAMINATION

|                |     |       |     |     |     |
|----------------|-----|-------|-----|-----|-----|
| Water          | %   | NEG   | --- | --- | --- |
| Soot %         | %   | ■ 0.2 | --- | --- | --- |
| Nitration (PA) | %   | 61    | --- | --- | --- |
| Sulfation (PA) | %   | 47    | --- | --- | --- |
| Glycol         | %   | NEG   | --- | --- | --- |
| Fuel           | %   | ■ 0.2 | --- | --- | --- |
| Silicon        | ppm | ■ 22  | --- | --- | --- |
| Sodium         | ppm | ■ 4   | --- | --- | --- |
| Potassium      | ppm | ■ <1  | --- | --- | --- |

### Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

### WEAR METALS

|            |     |      |     |     |     |
|------------|-----|------|-----|-----|-----|
| Iron       | ppm | ■ 8  | --- | --- | --- |
| Copper     | ppm | ■ 14 | --- | --- | --- |
| Lead       | ppm | ■ 1  | --- | --- | --- |
| Tin        | ppm | ■ <1 | --- | --- | --- |
| Aluminum   | ppm | ■ 4  | --- | --- | --- |
| Chromium   | ppm | ■ <1 | --- | --- | --- |
| Molybdenum | ppm | ■ 82 | --- | --- | --- |
| Nickel     | ppm | ■ 0  | --- | --- | --- |
| Titanium   | ppm | ■ 0  | --- | --- | --- |
| Silver     | ppm | ■ <1 | --- | --- | --- |
| Manganese  | ppm | ■ 1  | --- | --- | --- |
| Vanadium   | ppm | 0    | --- | --- | --- |

### ADDITIVES

|            |     |        |     |     |     |
|------------|-----|--------|-----|-----|-----|
| Calcium    | ppm | ■ 2123 | --- | --- | --- |
| Magnesium  | ppm | 57     | --- | --- | --- |
| Zinc       | ppm | ■ 1172 | --- | --- | --- |
| Phosphorus | ppm | ■ 1015 | --- | --- | --- |
| Barium     | ppm | ■ 0    | --- | --- | --- |
| Boron      | ppm | ■ 80   | --- | --- | --- |

**Depot:** VP794951  
**Unique No:** 11043984  
**Signed:** Jonathan Hester  
**Report Date:** 28 May 2024

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# VOLVO PENTA

## GRAPHS

