

# OIL ANALYSIS REPORT

# VOLVO PENTA

## PAULINA AZIMUT 43 VOLVO PENTA A760298 - STARBOARD DIESEL ENGINE

**Sample No:** VPA051056  
**Oil Type:** VOLVO PENTA SAE 15W40

### SAMPLE INFORMATION

|               |             |     |     |     |
|---------------|-------------|-----|-----|-----|
| Sample Number | VPA051056   | --- | --- | --- |
| Sample Date   | 04 Apr 2024 | --- | --- | --- |
| Machine Hours | 1429        | --- | --- | --- |
| Oil Hours     | 0           | --- | --- | --- |
| Oil Changed   | Not Changd  | --- | --- | --- |
| Sample Status | ABNORMAL    | --- | --- | --- |

**Marine International Diesels Inc.**  
3600 HACIENDA BLVD UNIT G  
DAVIE, FL  
US 33314  
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### OIL CONDITION

|                  |          |         |     |     |     |
|------------------|----------|---------|-----|-----|-----|
| Visc @ 100°C     | cSt      | █ 13.19 | --- | --- | --- |
| Base Number (BN) | mg KOH/g | █ 9.5   | --- | --- | --- |
| Oxidation (PA)   | %        | 50      | --- | --- | --- |

### CONTAMINATION

|                |     |        |     |     |     |
|----------------|-----|--------|-----|-----|-----|
| Water          | %   | NEG    | --- | --- | --- |
| Soot %         | %   | █ 0.1  | --- | --- | --- |
| Nitration (PA) | %   | 43     | --- | --- | --- |
| Sulfation (PA) | %   | 51     | --- | --- | --- |
| Glycol         | %   | NEG    | --- | --- | --- |
| Fuel           | %   | <1.0   | --- | --- | --- |
| Silicon        | ppm | █ 6    | --- | --- | --- |
| Sodium         | ppm | ● 1073 | --- | --- | --- |
| Potassium      | ppm | ▲ 45   | --- | --- | --- |

### WEAR METALS

|            |     |      |     |     |     |
|------------|-----|------|-----|-----|-----|
| Iron       | ppm | ▲ 93 | --- | --- | --- |
| Copper     | ppm | █ 10 | --- | --- | --- |
| Lead       | ppm | █ 3  | --- | --- | --- |
| Tin        | ppm | █ 0  | --- | --- | --- |
| Aluminum   | ppm | ▲ 27 | --- | --- | --- |
| Chromium   | ppm | █ 2  | --- | --- | --- |
| Molybdenum | ppm | █ 50 | --- | --- | --- |
| Nickel     | ppm | █ 2  | --- | --- | --- |
| Titanium   | ppm | █ 0  | --- | --- | --- |
| Silver     | ppm | █ 0  | --- | --- | --- |
| Manganese  | ppm | █ 1  | --- | --- | --- |
| Vanadium   | ppm | <1   | --- | --- | --- |

### ADDITIVES

|            |     |        |     |     |     |
|------------|-----|--------|-----|-----|-----|
| Calcium    | ppm | █ 1260 | --- | --- | --- |
| Magnesium  | ppm | 1029   | --- | --- | --- |
| Zinc       | ppm | █ 1160 | --- | --- | --- |
| Phosphorus | ppm | █ 1120 | --- | --- | --- |
| Barium     | ppm | █ 0    | --- | --- | --- |
| Boron      | ppm | █ 8    | --- | --- | --- |

### Diagnosis

We advise that you check for the source of water entry. We recommend an early resample to monitor this condition. Piston and cylinder wear is indicated. Sodium and/or potassium levels are high. The high sodium (Na) level indicates the possible presence of salt water. The water content is negligible. The BN result indicates that there is suitable alkalinity remaining in the oil.

**Depot:** VP694356  
**Unique No:** 10969658  
**Signed:** Doug Bogart  
**Report Date:** 10 Apr 2024

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## GRAPHS

