

# OIL ANALYSIS REPORT

# VOLVO PENTA

**NADINE URCIUOLI ROB NEWMAN VOLVO PENTA A 1115210 - STARBOARD GASOLINE ENGINE**

**Sample No:** VPA054844

**Oil Type:** VOLVO 10W40

## SAMPLE INFORMATION

Sample Number	VPA054844	---	---	---
Sample Date	04 Jun 2024	---	---	---
Machine Hours	68	---	---	---
Oil Hours	68	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

## OIL CONDITION

Visc @ 100°C	cSt	▲ 11.4	---	---	---
Base Number (BN)	mg KOH/g	■ 8.2	---	---	---
Oxidation (PA)	%	15	---	---	---

## CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	■ 0	---	---	---
Nitration (PA)	%	9	---	---	---
Sulfation (PA)	%	12	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	▲ 7.0	---	---	---
Silicon	ppm	▲ 107	---	---	---
Sodium	ppm	■ 2	---	---	---
Potassium	ppm	■ 6	---	---	---

## WEAR METALS

Iron	ppm	■ 53	---	---	---
Copper	ppm	■ 44	---	---	---
Lead	ppm	■ <1	---	---	---
Tin	ppm	■ 4	---	---	---
Aluminum	ppm	● 8	---	---	---
Chromium	ppm	■ 3	---	---	---
Molybdenum	ppm	39	---	---	---
Nickel	ppm	■ <1	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	■ <1	---	---	---
Manganese	ppm	6	---	---	---
Vanadium	ppm	0	---	---	---

## ADDITIVES

Calcium	ppm	2581	---	---	---
Magnesium	ppm	42	---	---	---
Zinc	ppm	793	---	---	---
Phosphorus	ppm	666	---	---	---
Barium	ppm	0	---	---	---
Boron	ppm	7	---	---	---

### Helmut's Marine Service

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Contact: NADINE URCIUOLI  
SERVICE@HELMUTSMARINE.COM  
T: x:  
F: x:

### Diagnosis

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Metal levels are typical for a new component breaking in. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a moderate amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

**Depot:** VP152741  
**Unique No:** 11073540  
**Signed:** Sean Felton  
**Report Date:** 17 Jun 2024

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## GRAPHS

