

# OIL ANALYSIS REPORT

# VOLVO PENTA

## ZACH MAY VOLVO PENTA A1104473 - STARBOARD GASOLINE ENGINE

**Sample No:** VPA036931  
**Oil Type:** VOLVO 10W40 SYNTHETIC

### SAMPLE INFORMATION

Sample Number	VPA036931	VPA044766	---	---
Sample Date	18 Oct 2023	15 Nov 2022	---	---
Machine Hours	80	75	---	---
Oil Hours	10	25	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	ATTENTION	ATTENTION	---	---

**CHICAGO YACHT WORKS**  
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### OIL CONDITION

Visc @ 100°C	cSt	▲ 12.0	▲ 11.7	---	---
Base Number (BN)	mg KOH/g	■ 7.2	■ 8.1	---	---
Oxidation (PA)	%	9	10	---	---

### Diagnosis

Oil and filter change at the time of sampling has been noted. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

### CONTAMINATION

Soot %	%	■ 0	■ 0.1	---	---
Nitration (PA)	%	7	8	---	---
Sulfation (PA)	%	10	10	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	▲ 2.9	---	---
Silicon	ppm	■ 19	■ 27	---	---
Sodium	ppm	■ <1	■ 0	---	---
Potassium	ppm	■ <1	■ 2	---	---

### WEAR METALS

Iron	ppm	■ 5	■ 10	---	---
Copper	ppm	■ 46	■ 58	---	---
Lead	ppm	■ 0	■ 0	---	---
Tin	ppm	■ <1	■ <1	---	---
Aluminum	ppm	■ <1	■ 1	---	---
Chromium	ppm	■ <1	■ <1	---	---
Molybdenum	ppm	34	39	---	---
Nickel	ppm	■ 0	■ 0	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	■ 0	■ 0	---	---
Manganese	ppm	5	7	---	---
Vanadium	ppm	0	0	---	---

### ADDITIVES

Calcium	ppm	1583	1821	---	---
Magnesium	ppm	23	11	---	---
Zinc	ppm	710	800	---	---
Phosphorus	ppm	630	682	---	---
Barium	ppm	0	0	---	---
Boron	ppm	1	2	---	---

**Depot:** VP1080862  
**Unique No:** 10714081  
**Signed:** Jonathan Hester  
**Report Date:** 01 Nov 2023

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## GRAPHS

