

# OIL ANALYSIS REPORT

# VOLVO PENTA

**ED RICHARDS SAM/502036 VOLVO PENTA A278599 - PORT DIESEL ENGINE**

**Sample No:** VPA044968

**Oil Type:** VOLVO PENTA SAE 15W40

## SAMPLE INFORMATION

Sample Number	<b>VPA044968</b>	VPA047793	VPA048128	---
Sample Date	<b>05 Jul 2023</b>	07 Dec 2022	03 May 2022	---
Machine Hours	<b>1071</b>	1036	991	---
Oil Hours	<b>0</b>	0	0	---
Oil Changed	<b>Changed</b>	N/A	Changed	---
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	---

**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	<b>13.5</b>	13.5	13.4	---
Base Number (BN)	mg KOH/g	<b>10.2</b>	10.8	10.1	---
Oxidation (PA)	%	<b>61</b>	62	54	---

## 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.

## CONTAMINATION

Soot %	%	<b>0.4</b>	0.4	0.2	---
Nitration (PA)	%	<b>57</b>	58	42	---
Sulfation (PA)	%	<b>55</b>	59	52	---
Glycol	%	<b>NEG</b>	NEG	NEG	---
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	---
Silicon	ppm	<b>4</b>	3	5	---
Sodium	ppm	<b>&lt;1</b>	0	0	---
Potassium	ppm	<b>2</b>	2	0	---

## WEAR METALS

Iron	ppm	<b>4</b>	8	7	---
Copper	ppm	<b>7</b>	6	2	---
Lead	ppm	<b>&lt;1</b>	<1	<1	---
Tin	ppm	<b>0</b>	<1	<1	---
Aluminum	ppm	<b>6</b>	<1	<1	---
Chromium	ppm	<b>0</b>	<1	<1	---
Molybdenum	ppm	<b>73</b>	60	60	---
Nickel	ppm	<b>0</b>	0	<1	---
Titanium	ppm	<b>0</b>	0	0	---
Silver	ppm	<b>0</b>	<1	<1	---
Manganese	ppm	<b>0</b>	<1	<1	---
Vanadium	ppm	<b>0</b>	0	0	---

## ADDITIVES

Calcium	ppm	<b>1274</b>	1057	1057	---
Magnesium	ppm	<b>1197</b>	881	983	---
Zinc	ppm	<b>1467</b>	1155	1258	---
Phosphorus	ppm	<b>1229</b>	967	1100	---
Barium	ppm	<b>12</b>	0	0	---
Boron	ppm	<b>0</b>	2	4	---

**Depot:** VP794951  
**Unique No:** 10551643  
**Signed:** Don Baldrige  
**Report Date:** 13 Jul 2023

# OIL ANALYSIS REPORT



## GRAPHS

