

# OIL ANALYSIS REPORT



## TRAVIS HOLT SAM VOLVO PENTA 7011314948 - PORT DIESEL ENGINE

**Sample No:** VPA059144  
**Oil Type:** VOLVO PENTA SAE 15W40

### SAMPLE INFORMATION

Sample Number	<b>VPA059144</b>	VPA036544	VPA045896	VPA043497
Sample Date	<b>17 Oct 2023</b>	06 Jul 2023	01 May 2023	19 Sep 2022
Machine Hours	<b>2518</b>	2288	2089	2008
Oil Hours	<b>0</b>	0	80	0
Oil Changed	<b>Not Chngd</b>	Changed	Changed	N/A
Sample Status	<b>NORMAL</b>	NORMAL	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>	12.5	12.8	13.0
Base Number (BN)	mg KOH/g	<b>9.1</b>	9.6	8.8	11.1
Oxidation (PA)	%	<b>57</b>	57	52	60

### CONTAMINATION

Soot %	%	<b>0.5</b>	0.5	0.2	0.3
Nitration (PA)	%	<b>56</b>	54	41	50
Sulfation (PA)	%	<b>53</b>	55	47	57
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>4</b>	7	18	4
Sodium	ppm	<b>1</b>	1	<1	0
Potassium	ppm	<b>2</b>	<1	2	<1

### WEAR METALS

Iron	ppm	<b>6</b>	6	3	2
Copper	ppm	<b>30</b>	31	7	11
Lead	ppm	<b>&lt;1</b>	1	0	<1
Tin	ppm	<b>&lt;1</b>	<1	0	0
Aluminum	ppm	<b>3</b>	2	3	<1
Chromium	ppm	<b>&lt;1</b>	<1	<1	<1
Molybdenum	ppm	<b>67</b>	65	52	52
Nickel	ppm	<b>&lt;1</b>	<1	0	0
Titanium	ppm	<b>&lt;1</b>	0	0	0
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>0</b>	<1	<1	<1
Vanadium	ppm	<b>&lt;1</b>	0	0	0

### ADDITIVES

Calcium	ppm	<b>1066</b>	1137	972	1005
Magnesium	ppm	<b>965</b>	1073	908	885
Zinc	ppm	<b>1233</b>	1393	1169	1100
Phosphorus	ppm	<b>995</b>	1144	922	909
Barium	ppm	<b>&lt;1</b>	0	0	0
Boron	ppm	<b>&lt;1</b>	3	0	2

### 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.

**Depot:** VP794951  
**Unique No:** 10701738  
**Signed:** Angela Borella  
**Report Date:** 23 Oct 2023

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# VOLVO PENTA

## GRAPHS

