

# OIL ANALYSIS REPORT

# VOLVO PENTA

## OAT WHITNEY MATTHEW DOW VOLVO PENTA A372483 - PORT DIESEL ENGINE

Sample No: VPA048745

Oil Type: VALVOLINE PREMIUM BLUE

### SAMPLE INFORMATION

Sample Number	<b>VPA048745</b>	VPA043339	VPA035618	VPA030258
Sample Date	<b>05 Sep 2023</b>	05 Oct 2022	06 Oct 2021	01 Oct 2019
Machine Hours	<b>407</b>	382	360	308
Oil Hours	<b>25</b>	22	52	46
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

**Mobile Marine Services Inc**  
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EAST JORDAN, MI  
US 49727  
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T: Phone  
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### OIL CONDITION

Visc @ 100°C	cSt	<b>14.2</b>	14.6	14.6	14.8
Base Number (BN)	mg KOH/g	<b>9.3</b>	11.0	10.6	---
Oxidation (PA)	%	<b>67</b>	71	66	60

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.1</b>	0.2	0.2	0.2
Nitration (PA)	%	<b>56</b>	61	59	54
Sulfation (PA)	%	<b>56</b>	60	55	52
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>4</b>	4	3	4
Sodium	ppm	<b>2</b>	3	6	5
Potassium	ppm	<b>0</b>	0	<1	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 acceptable for the time in service.

### WEAR METALS

Iron	ppm	<b>2</b>	6	9	7
Copper	ppm	<b>&lt;1</b>	<1	2	1
Lead	ppm	<b>0</b>	<1	<1	0
Tin	ppm	<b>0</b>	<1	<1	0
Aluminum	ppm	<b>1</b>	<1	0	<1
Chromium	ppm	<b>0</b>	<1	<1	<1
Molybdenum	ppm	<b>41</b>	45	47	45
Nickel	ppm	<b>0</b>	0	<1	<1
Titanium	ppm	<b>0</b>	<1	<1	2
Silver	ppm	<b>0</b>	1	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0

### ADDITIVES

Calcium	ppm	<b>1092</b>	1188	1633	1502
Magnesium	ppm	<b>805</b>	761	633	662
Zinc	ppm	<b>832</b>	871	1137	1150
Phosphorus	ppm	<b>629</b>	732	1042	956
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>44</b>	58	60	54

**Depot:** VP443016  
**Unique No:** 10742645  
**Signed:** Sean Felton  
**Report Date:** 16 Nov 2023

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## GRAPHS

