

# OIL ANALYSIS REPORT

# VOLVO PENTA

**PAT LANCASTER MATTHEW DOW VOLVO PENTA 2006035456 - PORT DIESEL ENGINE**

**Sample No:** VPA048736

**Oil Type:** VALVOLINE PREMIUM BLUE

## SAMPLE INFORMATION

Sample Number	<b>VPA048736</b>	VPA036090	VPA026840	VPA017517
Sample Date	<b>05 Sep 2023</b>	13 Sep 2021	08 Sep 2020	04 Sep 2019
Machine Hours	<b>628</b>	600	572	550
Oil Hours	<b>13</b>	28	22	38
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>14.6</b>	14.6	14.8	14.4
Base Number (BN)	mg KOH/g	<b>9.1</b>	9.9	---	---
Oxidation (PA)	%	<b>75</b>	73	70	52

## CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.1</b>	0.1	0.1	0.1
Nitration (PA)	%	<b>69</b>	68	67	62
Sulfation (PA)	%	<b>57</b>	57	57	43
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>4</b>	2	3	2
Sodium	ppm	<b>1</b>	6	4	7
Potassium	ppm	<b>0</b>	0	0	4

## WEAR METALS

Iron	ppm	<b>5</b>	4	4	4
Copper	ppm	<b>1</b>	2	1	0
Lead	ppm	<b>0</b>	0	<1	0
Tin	ppm	<b>&lt;1</b>	<1	0	<1
Aluminum	ppm	<b>1</b>	0	1	<1
Chromium	ppm	<b>0</b>	<1	<1	<1
Molybdenum	ppm	<b>43</b>	47	46	40
Nickel	ppm	<b>0</b>	0	<1	<1
Titanium	ppm	<b>&lt;1</b>	<1	4	23
Silver	ppm	<b>0</b>	0	<1	0
Manganese	ppm	<b>&lt;1</b>	0	<1	1
Vanadium	ppm	<b>0</b>	0	0	0

## ADDITIVES

Calcium	ppm	<b>1121</b>	1582	1546	1227
Magnesium	ppm	<b>788</b>	634	692	958
Zinc	ppm	<b>920</b>	1119	1152	1165
Phosphorus	ppm	<b>709</b>	1017	1037	948
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>45</b>	65	54	6

## 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.

**Depot:** VP443016  
**Unique No:** 10742646  
**Signed:** Sean Felton  
**Report Date:** 16 Nov 2023

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## GRAPHS

