

# OIL ANALYSIS REPORT

# VOLVO PENTA

## WINDSERVE VOLVO PENTA 10132167933 - DIESEL ENGINE

**Sample No:** VPA045099  
**Oil Type:** VOLVO PENTA SAE 15W40

### SAMPLE INFORMATION

Sample Number	<b>VPA045099</b>	VPA045096	VPA046614	---
Sample Date	<b>20 Aug 2023</b>	20 Aug 2023	20 Aug 2023	---
Machine Hours	<b>0</b>	0	0	---
Oil Hours	<b>1</b>	7	7	---
Oil Changed	<b>Changed</b>	Changed	Changed	---
Sample Status	<b>SEVERE</b>	SEVERE	SEVERE	---

**SENESCO MARINE**  
 10 MACNAUGHT ST  
 NORTH KINGSTOWN, RI  
 US 02852  
 Contact: CLAUDINO LUCIANO  
 cluciano@senescomarine.com  
 T:  
 F:

### OIL CONDITION

Visc @ 100°C	cSt	<b>12.95</b>	12.95	12.95	---
Base Number (BN)	mg KOH/g	<b>9.8</b>	9.9	9.9	---
Oxidation (PA)	%	<b>72</b>	72	72	---

### CONTAMINATION

Soot %	%	<b>0</b>	0	0	---
Nitration (PA)	%	<b>43</b>	43	43	---
Sulfation (PA)	%	<b>56</b>	56	56	---
Glycol	%	<b>NEG</b>	NEG	NEG	---
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	---
Silicon	ppm	<b>15</b>	15	16	---
Sodium	ppm	<b>3</b>	3	3	---
Potassium	ppm	<b>3</b>	2	3	---

### WEAR METALS

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

### ADDITIVES

Calcium	ppm	<b>1753</b>	1742	1766	---
Magnesium	ppm	<b>391</b>	389	393	---
Zinc	ppm	<b>1077</b>	1073	1085	---
Phosphorus	ppm	<b>886</b>	890	890	---
Barium	ppm	<b>0</b>	0	0	---
Boron	ppm	<b>76</b>	77	77	---

### Diagnosis

Oil and filter change at the time of sampling has been noted. All component wear rates are normal. There is a high amount of particulates present in the oil. The condition of the oil is acceptable for the time in service.

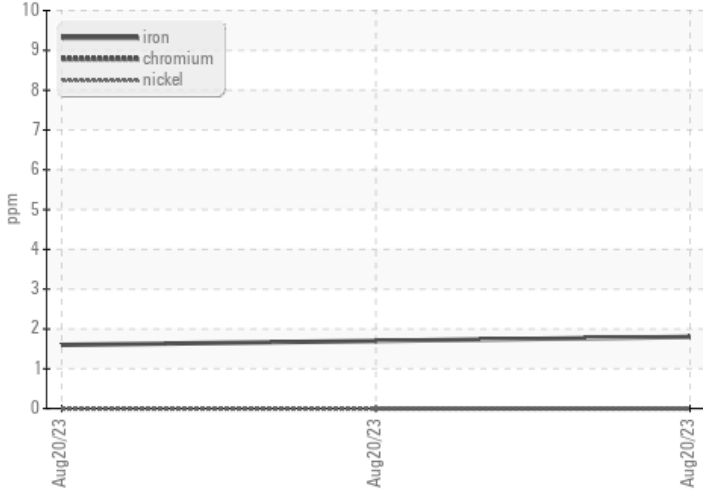
**Depot:** VPSENNOR  
**Unique No:** 10609068  
**Signed:** Doug Bogart  
**Report Date:** 21 Aug 2023

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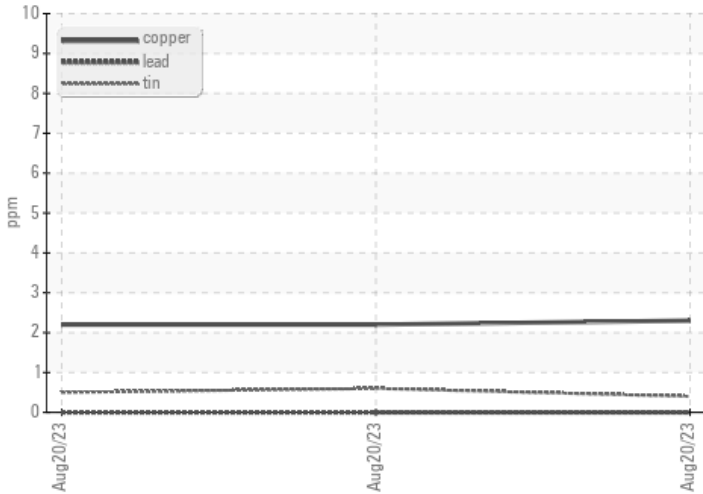
**VOLVO  
PENTA**

## GRAPHS

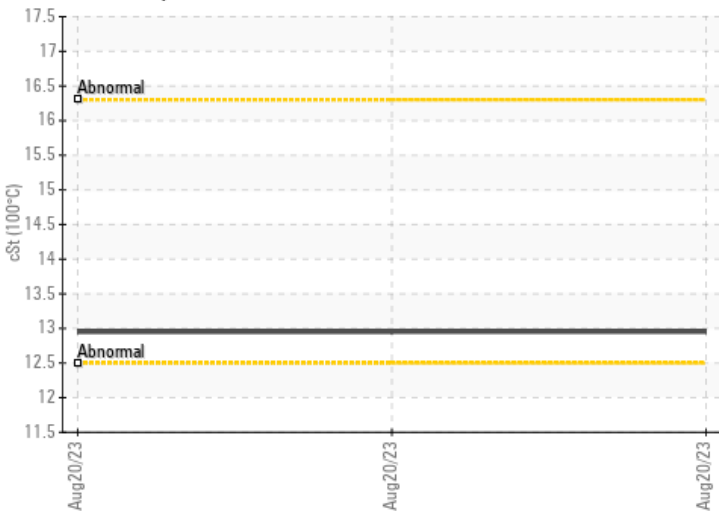
**Ferrous Alloys**



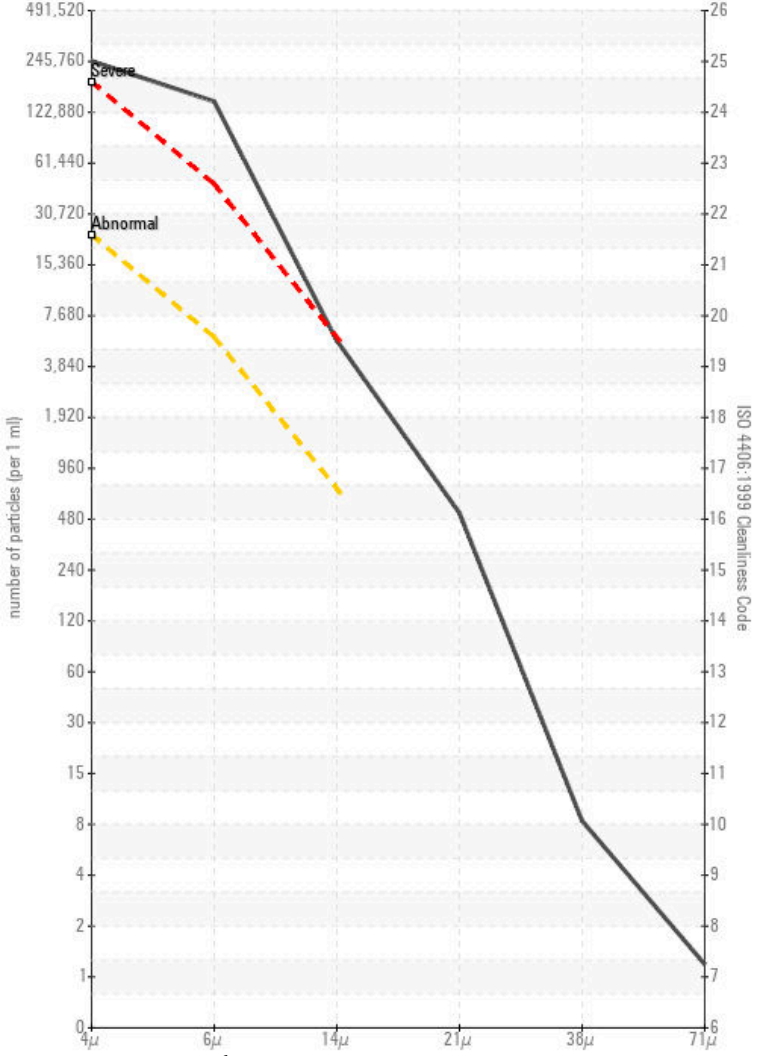
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Particle Count**



**Base Number**

