

# OIL ANALYSIS REPORT

# VOLVO PENTA

## VOLVO PENTA A1197384 - STARBOARD DIESEL ENGINE

Sample No: VPA051936

Oil Type: VOLVO PENTA SAE 15W40

### SAMPLE INFORMATION

Sample Number	VPA051936	---	---	---
Sample Date	10 Oct 2023	---	---	---
Machine Hours	120	---	---	---
Oil Hours	120	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

### OIL CONDITION

Visc @ 100°C	cSt	█ 12.6	---	---	---
Base Number (BN)	mg KOH/g	█ 10.6	---	---	---
Oxidation (PA)	%	77	---	---	---

### CONTAMINATION

Soot %	%	█ 0.4	---	---	---
Nitration (PA)	%	48	---	---	---
Sulfation (PA)	%	61	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	█ 19	---	---	---
Sodium	ppm	█ 5	---	---	---
Potassium	ppm	█ 0	---	---	---

### WEAR METALS

Iron	ppm	█ 18	---	---	---
Copper	ppm	█ 20	---	---	---
Lead	ppm	█ 4	---	---	---
Tin	ppm	█ 2	---	---	---
Aluminum	ppm	█ 7	---	---	---
Chromium	ppm	█ 1	---	---	---
Molybdenum	ppm	█ 39	---	---	---
Nickel	ppm	█ 1	---	---	---
Titanium	ppm	█ 0	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ 1	---	---	---
Vanadium	ppm	0	---	---	---

### ADDITIVES

Calcium	ppm	█ 1554	---	---	---
Magnesium	ppm	█ 407	---	---	---
Zinc	ppm	█ 956	---	---	---
Phosphorus	ppm	█ 812	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 58	---	---	---

**North Harbor Diesel Inc**  
720 30Th Street  
ANACORTES, WA  
US 98221  
Contact: ROBBIN MURDOCK  
robbin@northharbordiesel.com  
T: (360)299-1904  
F:

### 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:** VP179089  
**Unique No:** 10698234  
**Signed:** Don Baldrige  
**Report Date:** 18 Oct 2023

# OIL ANALYSIS REPORT

# VOLVO PENTA

## GRAPHS

