

# OIL ANALYSIS REPORT

# VOLVO PENTA

**SHANE MARTIN 00002 A718865 - CENTER MAIN ENGINE**

**Sample No:** VPA049942

**Oil Type:** VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3

## SAMPLE INFORMATION

Sample Number	VPA049942	---	---	---
Sample Date	02 Nov 2023	---	---	---
Machine Hours	610	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

**NORTH WESTERN MARINE SERVICES LTD**  
3645 MOUNTAIN HWY  
NORTH VANCOUVER, BC  
CA V7K 2H7  
Contact: ROB CULLEN  
rj@northwesternmarine.com  
T: (604)328-0530  
F:

## OIL CONDITION

Visc @ 100°C	cSt	█ 13.5	---	---	---
Oxidation (PA)	%	57	---	---	---

## CONTAMINATION

Soot %	%	█ 0.9	---	---	---
Nitration (PA)	%	58	---	---	---
Sulfation (PA)	%	57	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	█ 3	---	---	---
Sodium	ppm	█ 1	---	---	---
Potassium	ppm	█ 0	---	---	---

## Diagnosis

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Additive levels indicate the addition of a different brand, or type of oil. The condition of the oil is acceptable for the time in service.

## WEAR METALS

Iron	ppm	█ 24	---	---	---
Copper	ppm	█ 8	---	---	---
Lead	ppm	█ 2	---	---	---
Tin	ppm	█ <1	---	---	---
Aluminum	ppm	█ 2	---	---	---
Chromium	ppm	█ <1	---	---	---
Molybdenum	ppm	█ 61	---	---	---
Nickel	ppm	█ 3	---	---	---
Titanium	ppm	█ 0	---	---	---
Silver	ppm	█ <1	---	---	---
Manganese	ppm	█ 0	---	---	---
Vanadium	ppm	█ 0	---	---	---

## ADDITIVES

Calcium	ppm	1070	---	---	---
Magnesium	ppm	1006	---	---	---
Zinc	ppm	█ 1198	---	---	---
Phosphorus	ppm	█ 1014	---	---	---
Barium	ppm	█ <1	---	---	---
Boron	ppm	█ 1	---	---	---

**Depot:** VP533931  
**Unique No:** 5681522  
**Signed:** Kevin Marson  
**Report Date:** 15 Nov 2023

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## GRAPHS

