

# OIL ANALYSIS REPORT

# VOLVO PENTA

## PAUL STARNES VOLVO PENTA A684380 - PORT DIESEL ENGINE

Sample No: VPA062643

Oil Type: CHEVRON DELO 400 MULTIGRADE 15W40

### SAMPLE INFORMATION

Sample Number	VPA062643	---	---	---
Sample Date	04 Jun 2024	---	---	---
Machine Hours	643	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

**North Harbor Diesel Inc**  
720 30Th Street  
ANACORTES, WA  
US 98221  
Contact: ED MCFARLIN  
ed@northharbordiesel.com  
T:  
F:

### OIL CONDITION

Visc @ 100°C	cSt	█ 14.0	---	---	---
Base Number (BN)	mg KOH/g	█ 7.5	---	---	---
Oxidation (PA)	%	51	---	---	---

### CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	█ 0.1	---	---	---
Nitration (PA)	%	71	---	---	---
Sulfation (PA)	%	49	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	< 1.0	---	---	---
Silicon	ppm	█ 8	---	---	---
Sodium	ppm	█ 2	---	---	---
Potassium	ppm	█ 8	---	---	---

### 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	█ 30	---	---	---
Copper	ppm	█ 21	---	---	---
Lead	ppm	█ 4	---	---	---
Tin	ppm	█ < 1	---	---	---
Aluminum	ppm	█ 7	---	---	---
Chromium	ppm	█ 2	---	---	---
Molybdenum	ppm	█ 6	---	---	---
Nickel	ppm	█ 2	---	---	---
Titanium	ppm	█ 0	---	---	---
Silver	ppm	█ 0	---	---	---
Manganese	ppm	█ < 1	---	---	---
Vanadium	ppm	< 1	---	---	---

### ADDITIVES

Calcium	ppm	█ 1508	---	---	---
Magnesium	ppm	█ 763	---	---	---
Zinc	ppm	█ 895	---	---	---
Phosphorus	ppm	█ 788	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 74	---	---	---

Depot: VP179089  
Unique No: 11074815  
Signed: Sean Felton  
Report Date: 14 Jun 2024

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## GRAPHS

