

OIL ANALYSIS REPORT

VOLVO PENTA

NADINE URUIOLI OUTER LIMITS 2300468 VOLVO PENTA OUTER LIMITS (S/N N/A) - PORT DIESEL ENGINE

Sample No: VPA049573

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

SAMPLE INFORMATION

Sample Number	VPA049573	---	---	---
Sample Date	14 Sep 2023	---	---	---
Machine Hours	11153	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ATTENTION	---	---	---

OIL CONDITION

Visc @ 100°C	cSt	▲ 11.9	---	---	---
Base Number (BN)	mg KOH/g	■ 7.4	---	---	---
Oxidation (PA)	%	46	---	---	---

CONTAMINATION

Soot %	%	■ 0.1	---	---	---
Nitration (PA)	%	60	---	---	---
Sulfation (PA)	%	47	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	▲ 3.6	---	---	---
Silicon	ppm	■ 3	---	---	---
Sodium	ppm	■ 2	---	---	---
Potassium	ppm	■ 1	---	---	---

WEAR METALS

Iron	ppm	■ 3	---	---	---
Copper	ppm	■ 13	---	---	---
Lead	ppm	■ <1	---	---	---
Tin	ppm	■ 0	---	---	---
Aluminum	ppm	■ 0	---	---	---
Chromium	ppm	■ 0	---	---	---
Molybdenum	ppm	■ 6	---	---	---
Nickel	ppm	■ 0	---	---	---
Titanium	ppm	■ <1	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ <1	---	---	---
Vanadium	ppm	<1	---	---	---

ADDITIVES

Calcium	ppm	■ 1319	---	---	---
Magnesium	ppm	■ 732	---	---	---
Zinc	ppm	■ 803	---	---	---
Phosphorus	ppm	■ 685	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 69	---	---	---

Helmut's Marine Service

619 Canal Street

SAN RAFAEL, CA

US 94901-3545

Contact: NADINE URUIOLI

SERVICE@HELMUTSMARINE.COM

T: x:

F: x:

Diagnosis

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Depot: VP152741

Unique No: 10661545

Signed: Jonathan Hester

Report Date: 27 Sep 2023

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GRAPHS

