

OIL ANALYSIS REPORT

VOLVO PENTA

BARRY BARR 1610045 VOLVO PENTA 2071161817 - STARBOARD DIESEL ENGINE

Sample No: VPA056520

Oil Type: VOLVO VDS-4.5 Premium Motor Oil 15W40

SAMPLE INFORMATION

Sample Number	VPA056520	VPA047201	---	---
Sample Date	27 Mar 2024	11 Apr 2022	---	---
Machine Hours	0	1407	---	---
Oil Hours	0	0	---	---
Oil Changed	N/A	Changed	---	---
Sample Status	MARGINAL	NORMAL	---	---

Pacific Power Group - VP981534

7215 S 228th St

Kent, WA

US 98032

Contact: PAT RYAN

pryan@pacificpowergroup.com

T: (253)520-5163

F:

OIL CONDITION

Visc @ 100°C	cSt	▲ 12.2	■ 12.8	---	---
Base Number (BN)	mg KOH/g	■ 10.8	■ 10.5	---	---
Oxidation (PA)	%	61	63	---	---

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil.

CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	■ 0.5	■ 0.7	---	---
Nitration (PA)	%	64	66	---	---
Sulfation (PA)	%	52	60	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	■ 1.9	<1.0	---	---
Silicon	ppm	■ 5	■ 5	---	---
Sodium	ppm	■ 0	■ 2	---	---
Potassium	ppm	■ 0	■ <1	---	---

WEAR METALS

Iron	ppm	■ 6	■ 9	---	---
Copper	ppm	■ 14	■ 23	---	---
Lead	ppm	■ 2	■ 2	---	---
Tin	ppm	■ <1	■ <1	---	---
Aluminum	ppm	■ 1	■ <1	---	---
Chromium	ppm	■ <1	■ <1	---	---
Molybdenum	ppm	■ 57	■ 51	---	---
Nickel	ppm	■ 2	■ 3	---	---
Titanium	ppm	■ 0	■ 0	---	---
Silver	ppm	■ 0	■ <1	---	---
Manganese	ppm	■ 0	■ <1	---	---
Vanadium	ppm	0	0	---	---

ADDITIVES

Calcium	ppm	■ 1071	■ 1149	---	---
Magnesium	ppm	■ 949	■ 902	---	---
Zinc	ppm	■ 1243	■ 1157	---	---
Phosphorus	ppm	■ 1040	■ 1020	---	---
Barium	ppm	■ 0	■ 0	---	---
Boron	ppm	■ 9	■ 29	---	---

Depot: VP99031103

Unique No: 10981780

Signed: Jonathan Hester

Report Date: 22 Apr 2024

OIL ANALYSIS REPORT

**VOLVO
PENTA**

GRAPHS

