

OIL ANALYSIS REPORT



MICHAEL WIDMER 7716312 VOLVO PENTA A1113712 - PORT DIESEL ENGINE

Sample No: VPA056481

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

SAMPLE INFORMATION

Sample Number	VPA056481	VPA041517	---	---
Sample Date	28 Jul 2023	12 Jul 2022	---	---
Machine Hours	34	30	---	---
Oil Hours	0	30	---	---
Oil Changed	N/A	Changed	---	---
Sample Status	NORMAL	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	13.5	13.4	---	---
Base Number (BN)	mg KOH/g	10.5	11.5	---	---
Oxidation (PA)	%	57	84	---	---

CONTAMINATION

Soot %	%	0	0.1	---	---
Nitration (PA)	%	38	44	---	---
Sulfation (PA)	%	52	64	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	9	24	---	---
Sodium	ppm	1	3	---	---
Potassium	ppm	2	3	---	---

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	6	9	---	---
Copper	ppm	1	7	---	---
Lead	ppm	1	2	---	---
Tin	ppm	<1	2	---	---
Aluminum	ppm	3	5	---	---
Chromium	ppm	<1	<1	---	---
Molybdenum	ppm	56	41	---	---
Nickel	ppm	<1	<1	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	0	0	---	---
Manganese	ppm	<1	<1	---	---
Vanadium	ppm	0	0	---	---

ADDITIVES

Calcium	ppm	1116	1684	---	---
Magnesium	ppm	951	488	---	---
Zinc	ppm	1341	1109	---	---
Phosphorus	ppm	1081	948	---	---
Barium	ppm	0	0	---	---
Boron	ppm	10	83	---	---

Depot: VP99031103

Unique No: 10605782

Signed: Don Baldrige

Report Date: 17 Aug 2023

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VOLVO PENTA

GRAPHS

