

OIL ANALYSIS REPORT

VOLVO PENTA

GREG GARTRELL GEOFF VOLVO PENTA A416986 - PORT DIESEL ENGINE

Sample No: VPA050735

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

SAMPLE INFORMATION

Sample Number	VPA050735	VPA029919	VPA038686	---
Sample Date	27 Jun 2023	19 Apr 2022	07 Jul 2021	---
Machine Hours	769	722	626	---
Oil Hours	0	0	100	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

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OIL CONDITION

Visc @ 100°C	cSt	13.5	13.4	13.8	---
Base Number (BN)	mg KOH/g	10.0	11.1	---	---
Oxidation (PA)	%	60	58	60	---

CONTAMINATION

Soot %	%	0.2	0.3	0.4	---
Nitration (PA)	%	43	50	56	---
Sulfation (PA)	%	53	56	58	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	5	4	5	---
Sodium	ppm	2	<1	5	---
Potassium	ppm	3	<1	<1	---

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	11	11	25	---
Copper	ppm	2	6	6	---
Lead	ppm	<1	6	3	---
Tin	ppm	<1	<1	<1	---
Aluminum	ppm	<1	2	0	---
Chromium	ppm	<1	<1	<1	---
Molybdenum	ppm	57	56	52	---
Nickel	ppm	<1	<1	2	---
Titanium	ppm	0	0	0	---
Silver	ppm	0	0	0	---
Manganese	ppm	<1	<1	<1	---
Vanadium	ppm	<1	0	0	---

ADDITIVES

Calcium	ppm	1078	1109	1049	---
Magnesium	ppm	992	931	872	---
Zinc	ppm	1255	1197	1045	---
Phosphorus	ppm	1011	971	930	---
Barium	ppm	<1	0	0	---
Boron	ppm	<1	17	14	---

Depot: VP794951
Unique No: 10546804
Signed: Don Baldrige
Report Date: 07 Jul 2023

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GRAPHS

