

OIL ANALYSIS REPORT

VOLVO PENTA

ALASKA LUXURY TOURS OPUS VOLVO PENTA A1202078 - PORT DIESEL ENGINE

Sample No: VPA056367

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

SAMPLE INFORMATION

Sample Number	VPA056367	VPA050957	---	---
Sample Date	02 Jul 2023	03 Jun 2023	---	---
Machine Hours	394	183	---	---
Oil Hours	211	183	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	NORMAL	---	---

Sundance Mfg Inc

570 N.E. Tomahawk Isl. Dr.
Portland, OR
US 97217
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F:

OIL CONDITION

Visc @ 100°C	cSt	█ 14.3	█ 14.0	---	---
Base Number (BN)	mg KOH/g	█ 10.4	█ 10.2	---	---
Oxidation (PA)	%	57	58	---	---

CONTAMINATION

Soot %	%	█ 0.5	█ 0.3	---	---
Nitration (PA)	%	55	51	---	---
Sulfation (PA)	%	54	53	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	█ 6	█ 17	---	---
Sodium	ppm	█ 1	█ 4	---	---
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 suitable for further service.

WEAR METALS

Iron	ppm	█ 24	█ 18	---	---
Copper	ppm	█ 11	█ 19	---	---
Lead	ppm	█ 3	█ 3	---	---
Tin	ppm	█ 2	█ 3	---	---
Aluminum	ppm	█ 3	█ 2	---	---
Chromium	ppm	█ 2	█ 1	---	---
Molybdenum	ppm	█ 58	█ 58	---	---
Nickel	ppm	█ 3	█ 2	---	---
Titanium	ppm	█ <1	█ 0	---	---
Silver	ppm	█ 0	█ 0	---	---
Manganese	ppm	█ <1	█ <1	---	---
Vanadium	ppm	<1	0	---	---

ADDITIVES

Calcium	ppm	█ 1093	█ 1279	---	---
Magnesium	ppm	█ 944	927	---	---
Zinc	ppm	█ 1238	█ 1295	---	---
Phosphorus	ppm	█ 988	█ 1049	---	---
Barium	ppm	█ 0	█ 0	---	---
Boron	ppm	█ <1	█ 9	---	---

Depot: VP154394
Unique No: 10550589
Signed: Don Baldrige
Report Date: 12 Jul 2023

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GRAPHS

