

OIL ANALYSIS REPORT



ALASKA LUXURY TOURS OPUS-PORT VOLVO PENTA A1202078 - PORT DIESEL ENGINE

Sample No: VPA056359
Oil Type: VOLVO VDS-4.5 Premium Motor Oil 15W40

SAMPLE INFORMATION

Sample Number	VPA056359	VPA056367	VPA050957	---
Sample Date	29 Jul 2023	02 Jul 2023	03 Jun 2023	---
Machine Hours	598	394	183	---
Oil Hours	200	211	183	---
Oil Changed	Changed	Changed	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

Sundance Mfg Inc
 570 N.E. Tomahawk Isl. Dr.
 Portland, OR
 US 97217
 Contact: CLARK HOLMES
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 T:
 F:

OIL CONDITION

Visc @ 100°C	cSt	14.4	14.3	14.0	---
Base Number (BN)	mg KOH/g	9.8	10.4	10.2	---
Oxidation (PA)	%	54	57	58	---

CONTAMINATION

Soot %	%	0.6	0.5	0.3	---
Nitration (PA)	%	52	55	51	---
Sulfation (PA)	%	51	54	53	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	4	6	17	---
Sodium	ppm	2	1	4	---
Potassium	ppm	0	2	3	---

Diagnosis

Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. 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	21	24	18	---
Copper	ppm	8	11	19	---
Lead	ppm	2	3	3	---
Tin	ppm	2	2	3	---
Aluminum	ppm	0	3	2	---
Chromium	ppm	1	2	1	---
Molybdenum	ppm	63	58	58	---
Nickel	ppm	2	3	2	---
Titanium	ppm	<1	<1	0	---
Silver	ppm	0	0	0	---
Manganese	ppm	<1	<1	<1	---
Vanadium	ppm	<1	<1	0	---

ADDITIVES

Calcium	ppm	1167	1093	1279	---
Magnesium	ppm	1049	944	927	---
Zinc	ppm	1317	1238	1295	---
Phosphorus	ppm	1094	988	1049	---
Barium	ppm	0	0	0	---
Boron	ppm	0	<1	9	---

Depot: VP154394
Unique No: 10609109
Signed: Sean Felton
Report Date: 22 Aug 2023

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GRAPHS

