

OIL ANALYSIS REPORT

VOLVO PENTA

ED DOUGHERTY SAM VOLVO PENTA A201949 - CENTER DIESEL ENGINE

Sample No: VPA059095

Oil Type: VOLVO PENTA SAE 15W40

SAMPLE INFORMATION

Sample Number	VPA059095	---	---	---
Sample Date	28 Nov 2023	---	---	---
Machine Hours	1616	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

Endor Marine LLC - Coastal Marine - 152124
4300 11th Ave. NW
SEATTLE, WA
US 98107
Contact: WILLOW YANARELLA
service@coastalmarineengine.com
T: (206)784-3703
F: (206)784-8823

OIL CONDITION

Visc @ 100°C	cSt	█ 13.4	---	---	---
Base Number (BN)	mg KOH/g	█ 9.4	---	---	---
Oxidation (PA)	%	58	---	---	---

Diagnosis

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Piston and cylinder wear is indicated. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.

CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	█ 0.3	---	---	---
Nitration (PA)	%	61	---	---	---
Sulfation (PA)	%	53	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	< 1.0	---	---	---
Silicon	ppm	█ 8	---	---	---
Sodium	ppm	▲ 182	---	---	---
Potassium	ppm	█ 14	---	---	---

WEAR METALS

Iron	ppm	▲ 95	---	---	---
Copper	ppm	█ 21	---	---	---
Lead	ppm	█ < 1	---	---	---
Tin	ppm	█ < 1	---	---	---
Aluminum	ppm	▲ 54	---	---	---
Chromium	ppm	█ 6	---	---	---
Molybdenum	ppm	█ 56	---	---	---
Nickel	ppm	█ 2	---	---	---
Titanium	ppm	█ < 1	---	---	---
Silver	ppm	█ < 1	---	---	---
Manganese	ppm	█ < 1	---	---	---
Vanadium	ppm	0	---	---	---

ADDITIVES

Calcium	ppm	█ 1186	---	---	---
Magnesium	ppm	█ 966	---	---	---
Zinc	ppm	█ 1193	---	---	---
Phosphorus	ppm	█ 1050	---	---	---
Barium	ppm	█ 0	---	---	---
Boron	ppm	█ 17	---	---	---

Depot: VP794951
Unique No: 10769473
Signed: Jonathan Hester
Report Date: 06 Dec 2023

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GRAPHS

