

# OIL ANALYSIS REPORT

# VOLVO PENTA

**TRAVIS ORNER TREE SERVICE 22678 KOHLER/VERMEER 5207703350 - VARIABLE SPEED - DIESEL ENGINE**

**Sample No:** VPA039716

**Oil Type:** DIESEL ENGINE OIL SAE 10W30

## SAMPLE INFORMATION

Sample Number	VPA039716	---	---	---
Sample Date	01 Aug 2023	---	---	---
Machine Hours	441	---	---	---
Oil Hours	4	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	SEVERE	---	---	---

### Rutt's Machine Inc.

300 Jonlyn Dr  
Elizabethtown, PA  
US 17022  
Contact: John Rutt  
rutt.john@ruttsmachine.com  
T:  
F:

## OIL CONDITION

Visc @ 100°C	cSt	▲ 9.5	---	---	---
Base Number (BN)	mg KOH/g	■ 8.2	---	---	---
Oxidation (PA)	%	■ 68	---	---	---

## CONTAMINATION

Soot %	%	■ 0.1	---	---	---
Nitration (PA)	%	■ 41	---	---	---
Sulfation (PA)	%	■ 54	---	---	---
Glycol	%	■ NEG	---	---	---
Fuel	%	◆ 8.6	---	---	---
Silicon	ppm	■ 6	---	---	---
Sodium	ppm	■ <1	---	---	---
Potassium	ppm	■ 2	---	---	---

## Diagnosis

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. There is a high amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

## WEAR METALS

Iron	ppm	■ 11	---	---	---
Copper	ppm	■ <1	---	---	---
Lead	ppm	■ <1	---	---	---
Tin	ppm	■ 0	---	---	---
Aluminum	ppm	■ 2	---	---	---
Chromium	ppm	■ <1	---	---	---
Molybdenum	ppm	■ 52	---	---	---
Nickel	ppm	■ 0	---	---	---
Titanium	ppm	■ 7	---	---	---
Silver	ppm	■ 0	---	---	---
Manganese	ppm	■ <1	---	---	---
Vanadium	ppm	■ <1	---	---	---

## ADDITIVES

Calcium	ppm	■ 1695	---	---	---
Magnesium	ppm	■ 394	---	---	---
Zinc	ppm	■ 1220	---	---	---
Phosphorus	ppm	■ 1006	---	---	---
Barium	ppm	■ 0	---	---	---
Boron	ppm	■ 125	---	---	---

**Depot:** VP743218  
**Unique No:** 10587676  
**Signed:** Jonathan Hester  
**Report Date:** 08 Aug 2023

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## GRAPHS

