

# OIL ANALYSIS REPORT



**TIM ALDERSON 1147202 VOLVO PENTA A1117932 - CENTER DIESEL ENGINE**

**Sample No:** VPA054940

**Oil Type:** VOLVO PENTA SAE 15W40

## SAMPLE INFORMATION

Sample Number	<b>VPA054940</b>	VPA041620	---	---
Sample Date	<b>01 May 2024</b>	18 Jul 2022	---	---
Machine Hours	<b>216</b>	158	---	---
Oil Hours	<b>58</b>	158	---	---
Oil Changed	<b>Changed</b>	Changed	---	---
Sample Status	<b>ABNORMAL</b>	ABNORMAL	---	---

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## OIL CONDITION

Visc @ 100°C	cSt	<b>13.1</b>	13.2	---	---
Base Number (BN)	mg KOH/g	<b>9.8</b>	---	---	---
Oxidation (PA)	%	<b>57</b>	85	---	---

## Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The aluminum level is abnormal. All other component wear rates are normal. The high sodium (Na) level indicates the possible presence of salt water. 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.

## CONTAMINATION

Water	%	<b>NEG</b>	NEG	---	---
Soot %	%	<b>0.4</b>	0.8	---	---
Nitration (PA)	%	<b>44</b>	62	---	---
Sulfation (PA)	%	<b>54</b>	66	---	---
Glycol	%	<b>NEG</b>	NEG	---	---
Fuel	%	<b>&lt;1.0</b>	<1.0	---	---
Silicon	ppm	<b>9</b>	25	---	---
Sodium	ppm	<b>418</b>	10	---	---
Potassium	ppm	<b>16</b>	3	---	---

## WEAR METALS

Iron	ppm	<b>44</b>	41	---	---
Copper	ppm	<b>14</b>	21	---	---
Lead	ppm	<b>7</b>	12	---	---
Tin	ppm	<b>2</b>	7	---	---
Aluminum	ppm	<b>39</b>	48	---	---
Chromium	ppm	<b>3</b>	4	---	---
Molybdenum	ppm	<b>61</b>	43	---	---
Nickel	ppm	<b>2</b>	3	---	---
Titanium	ppm	<b>0</b>	<1	---	---
Silver	ppm	<b>0</b>	<1	---	---
Manganese	ppm	<b>&lt;1</b>	2	---	---
Vanadium	ppm	<b>0</b>	<1	---	---

## ADDITIVES

Calcium	ppm	<b>1260</b>	1571	---	---
Magnesium	ppm	<b>1030</b>	517	---	---
Zinc	ppm	<b>1333</b>	1077	---	---
Phosphorus	ppm	<b>1106</b>	873	---	---
Barium	ppm	<b>0</b>	1	---	---
Boron	ppm	<b>4</b>	56	---	---

**Depot:** VP99031103  
**Unique No:** 11030912  
**Signed:** Sean Felton  
**Report Date:** 17 May 2024

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## GRAPHS

