

# OIL ANALYSIS REPORT



## MANCHESTER 40 LEFT AG R823699M VOLVO PENTA 2013955652 - VARIABLE SPEED - PORT DIESEL ENGINE

**Sample No:** VPA060854  
**Oil Type:** VOLVO PENTA SAE 15W40

### SAMPLE INFORMATION

Sample Number	<b>VPA060854</b>	VPA043948	VPA048397	---
Sample Date	<b>10 May 2024</b>	15 Sep 2023	06 Oct 2022	---
Machine Hours	<b>275</b>	210	87	---
Oil Hours	<b>64</b>	123	87	---
Oil Changed	<b>N/A</b>	N/A	N/A	---
Sample Status	<b>ATTENTION</b>	ATTENTION	ATTENTION	---

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### OIL CONDITION

Visc @ 100°C	cSt	<b>12.2</b>	12.1	12.3	---
Base Number (BN)	mg KOH/g	<b>10.1</b>	10.3	10.9	---
Oxidation (PA)	%	<b>74</b>	72	65	---

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	---
Soot %	%	<b>0.1</b>	0	0.1	---
Nitration (PA)	%	<b>41</b>	43	48	---
Sulfation (PA)	%	<b>58</b>	57	57	---
Glycol	%	<b>NEG</b>	NEG	NEG	---
Fuel	%	<b>&lt;1.0</b>	<1.0	1.3	---
Silicon	ppm	<b>9</b>	10	16	---
Sodium	ppm	<b>3</b>	2	0	---
Potassium	ppm	<b>2</b>	1	3	---

### Diagnosis

No corrective action is recommended at this time. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

### WEAR METALS

Iron	ppm	<b>3</b>	4	6	---
Copper	ppm	<b>3</b>	4	13	---
Lead	ppm	<b>0</b>	0	<1	---
Tin	ppm	<b>&lt;1</b>	<1	1	---
Aluminum	ppm	<b>2</b>	<1	1	---
Chromium	ppm	<b>0</b>	0	<1	---
Molybdenum	ppm	<b>42</b>	44	57	---
Nickel	ppm	<b>0</b>	0	0	---
Titanium	ppm	<b>0</b>	0	0	---
Silver	ppm	<b>0</b>	0	0	---
Manganese	ppm	<b>1</b>	<1	2	---
Vanadium	ppm	<b>0</b>	0	0	---

### ADDITIVES

Calcium	ppm	<b>1574</b>	1623	1247	---
Magnesium	ppm	<b>523</b>	613	907	---
Zinc	ppm	<b>890</b>	1012	1296	---
Phosphorus	ppm	<b>775</b>	821	1065	---
Barium	ppm	<b>0</b>	0	0	---
Boron	ppm	<b>75</b>	62	15	---

**Depot:** VP153549  
**Unique No:** 11042530  
**Signed:** Jonathan Hester  
**Report Date:** 23 May 2024

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**VOLVO  
PENTA**

## GRAPHS

