

# OIL ANALYSIS REPORT



## SUSAN CHYETTE VOLVO PENTA 7011400911 - STARBOARD MAIN ENGINE

**Sample No:** VPA036507  
**Oil Type:** VOLVO PENTA SAE 15W40

### SAMPLE INFORMATION

Sample Number	<b>VPA036507</b>	VPA044778	VPA031475	VPA027761
Sample Date	<b>04 Mar 2024</b>	25 Jan 2023	01 Sep 2021	01 Sep 2020
Machine Hours	<b>572</b>	513	448	373
Oil Hours	<b>55</b>	65	75	0
Oil Changed	<b>Changed</b>	N/A	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	NORMAL	NORMAL

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### OIL CONDITION

Visc @ 100°C	cSt	<b>13.0</b>	13.0	12.7	12.9
Base Number (BN)	mg KOH/g	<b>9.7</b>	9.9	10.7	11.1
Oxidation (PA)	%	<b>57</b>	58	61	62

### CONTAMINATION

Water	%	<b>NEG</b>	NEG	NEG	NEG
Soot %	%	<b>0.4</b>	0.5	0.4	0.4
Nitration (PA)	%	<b>54</b>	59	58	59
Sulfation (PA)	%	<b>53</b>	55	57	57
Glycol	%	<b>NEG</b>	NEG	NEG	NEG
Fuel	%	<b>&lt;1.0</b>	<1.0	<1.0	<1.0
Silicon	ppm	<b>5</b>	5	5	5
Sodium	ppm	<b>2</b>	1	<1	1
Potassium	ppm	<b>3</b>	0	0	0

### Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. 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	<b>5</b>	6	6	5
Copper	ppm	<b>24</b>	32	27	31
Lead	ppm	<b>1</b>	1	<1	1
Tin	ppm	<b>&lt;1</b>	<1	<1	<1
Aluminum	ppm	<b>2</b>	<1	<1	<1
Chromium	ppm	<b>0</b>	<1	<1	<1
Molybdenum	ppm	<b>61</b>	59	59	62
Nickel	ppm	<b>1</b>	<1	0	0
Titanium	ppm	<b>0</b>	0	0	<1
Silver	ppm	<b>0</b>	0	0	0
Manganese	ppm	<b>&lt;1</b>	<1	<1	<1
Vanadium	ppm	<b>0</b>	0	0	0

### ADDITIVES

Calcium	ppm	<b>1059</b>	1035	1058	1091
Magnesium	ppm	<b>974</b>	942	921	954
Zinc	ppm	<b>1304</b>	1218	1222	1259
Phosphorus	ppm	<b>1100</b>	1028	1000	1023
Barium	ppm	<b>0</b>	0	0	0
Boron	ppm	<b>9</b>	4	3	2

**Depot:** VP151756  
**Unique No:** 10943221  
**Signed:** Don Baldrige  
**Report Date:** 28 Mar 2024

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# VOLVO PENTA

## GRAPHS

