

# OIL ANALYSIS REPORT



## ENCORE V (S/N 3940023261) - STARBOARD IPS

Sample No: VPA042024

Oil Type: VOLVO API GL-5 SAE 75W90

### SAMPLE INFORMATION

Sample Number	<b>VPA042024</b>	VPA040156	VPA025110	VPA029059
Sample Date	<b>27 Mar 2023</b>	24 Jun 2022	26 Jul 2021	13 Aug 2020
Machine Hours	<b>1200</b>	3827	0	0
Oil Hours	<b>350</b>	400	500	200
Oil Changed	<b>Changed</b>	Changed	Changed	Changed
Sample Status	<b>NORMAL</b>	NORMAL	ATTENTION	ABNORMAL

**BAY STATE CRUISE COMPANY**  
 200 SEAPORT BLVD, SUITE 50 LOWER LEVEL  
 BOSTON, MA  
 US 02210  
 Contact: CHRISTINE HOOLEY  
 christine@baystatecruisecompany.com  
 T: (617)775-8418  
 F:

### OIL CONDITION

Visc @ 40°C	cSt	<b>104</b>	103	105	105
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### CONTAMINATION

Water	%	<b>0.158</b>	NEG	NEG	0.195
Silicon	ppm	<b>11</b>	17	14	18
Sodium	ppm	<b>9</b>	11	11	15
Potassium	ppm	<b>&lt;1</b>	2	0	1

### WEAR METALS

PQ		<b>12</b>	18	24	22
Iron	ppm	<b>128</b>	186	239	236
Copper	ppm	<b>7</b>	11	14	17
Lead	ppm	<b>0</b>	<1	<1	<1
Tin	ppm	<b>0</b>	0	0	<1
Aluminum	ppm	<b>2</b>	4	7	0
Chromium	ppm	<b>&lt;1</b>	2	2	2
Molybdenum	ppm	<b>0</b>	<1	<1	<1
Nickel	ppm	<b>1</b>	0	2	3
Titanium	ppm	<b>0</b>	<1	0	<1
Silver	ppm	<b>0</b>	0	6	<1
Manganese	ppm	<b>&lt;1</b>	4	3	7
Vanadium	ppm	<b>0</b>	0	0	0

### ADDITIVES

Calcium	ppm	<b>2</b>	8	3	5
Magnesium	ppm	<b>3</b>	4	2	3
Zinc	ppm	<b>23</b>	54	23	32
Phosphorus	ppm	<b>1403</b>	1360	1233	1381
Barium	ppm	<b>0</b>	2	0	0
Boron	ppm	<b>306</b>	349	353	330

### Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. The water content is negligible. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service.

**Depot:** VPBAYBOS  
**Unique No:** 10885368  
**Signed:** Sean Felton  
**Report Date:** 20 Feb 2024

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# VOLVO PENTA

## GRAPHS

