

# OIL ANALYSIS REPORT

# VOLVO PENTA

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

Sample No: VPA048641

Oil Type: VOLVO API GL-5 SAE 75W90

### SAMPLE INFORMATION

Sample Number	VPA048641	VPA045983	VPA042039	VPA040157
Sample Date	05 Sep 2023	30 Jun 2023	27 Mar 2023	24 Jun 2022
Machine Hours	5516	0	1200	3827
Oil Hours	400	420	350	400
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

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

### OIL CONDITION

Visc @ 40°C	cSt	█ 105	█ 103	█ 104	█ 106
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### CONTAMINATION

Water	%	NEG	█ 0.169	NEG	NEG
Silicon	ppm	21	10	16	14
Sodium	ppm	█ 16	█ 4	█ 29	█ <1
Potassium	ppm	█ 2	█ <1	█ 2	█ 3

### WEAR METALS

PQ		█ 15	█ 18	█ 17	█ 16
Iron	ppm	▲ 238	█ 42	█ 99	█ 30
Copper	ppm	█ 12	7	8	7
Lead	ppm	<1	0	<1	<1
Tin	ppm	<1	0	<1	0
Aluminum	ppm	6	2	6	2
Chromium	ppm	█ 2	█ <1	█ 2	█ <1
Molybdenum	ppm	█ 1	█ 0	█ 1	█ 1
Nickel	ppm	█ 4	█ <1	█ 3	█ 0
Titanium	ppm	<1	0	<1	0
Silver	ppm	<1	0	<1	0
Manganese	ppm	█ 3	█ 0	█ 3	█ 2
Vanadium	ppm	<1	0	<1	0

### ADDITIVES

Calcium	ppm	█ 1	█ 1	█ 2	█ 3
Magnesium	ppm	█ 3	█ 1	█ 5	█ 2
Zinc	ppm	█ 31	█ 8	█ 63	█ 10
Phosphorus	ppm	█ 1161	█ 1402	█ 1244	█ 1353
Barium	ppm	█ 0	█ 0	█ 0	█ 2
Boron	ppm	█ 284	█ 307	█ 309	█ 375

### 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. Gear wear is indicated. 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: 10885357  
Signed: Sean Felton  
Report Date: 20 Feb 2024

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## GRAPHS

