

OIL ANALYSIS REPORT



ENCORE III (S/N 3940025045) - STARBOARD IPS

Sample No: VPA045985

Oil Type: VOLVO API GL-5 SAE 75W90

SAMPLE INFORMATION

Sample Number	VPA045985	VPA040152	VPA035192	VPA040440
Sample Date	21 Jun 2023	18 Jul 2022	07 Apr 2022	12 Jan 2022
Machine Hours	430	5140	4860	4686
Oil Hours	430	500	200	500
Oil Changed	Changed	Changed	Not Changd	Changed
Sample Status	NORMAL	ATTENTION	NORMAL	SEVERE

BAY STATE CRUISE COMPANY
 200 SEAPORT BLVD, SUITE 50 LOWER LEVEL
 BOSTON, MA
 US 02210
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 F:

OIL CONDITION

Visc @ 40°C	cSt	99.0	107	109	106
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CONTAMINATION

Water	%	0.164	NEG	NEG	0.291
Silicon	ppm	14	20	10	14
Sodium	ppm	12	30	12	48
Potassium	ppm	1	2	0	2

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 condition of the oil is acceptable for the time in service.

WEAR METALS

PQ		22	18	21	22
Iron	ppm	174	311	101	554
Copper	ppm	11	14	5	20
Lead	ppm	0	<1	0	<1
Tin	ppm	0	0	<1	<1
Aluminum	ppm	2	22	8	24
Chromium	ppm	2	3	1	5
Molybdenum	ppm	0	<1	<1	<1
Nickel	ppm	1	0	2	6
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	0	<1
Manganese	ppm	4	4	1	6
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	4	4	3	2
Magnesium	ppm	3	5	2	7
Zinc	ppm	46	73	36	87
Phosphorus	ppm	1372	1389	1314	1421
Barium	ppm	0	2	0	0
Boron	ppm	294	363	308	305

Depot: VPBAYBOS
Unique No: 10885366
Signed: Sean Felton
Report Date: 20 Feb 2024

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VOLVO PENTA

GRAPHS

