

OIL ANALYSIS REPORT

VOLVO PENTA

OAT WHITNEY MATTHEW DOW VOLVO PENTA A372484 - STARBOARD DIESEL ENGINE

Sample No: VPA048749

Oil Type: VALVOLINE PREMIUM BLUE

SAMPLE INFORMATION

Sample Number	VPA048749	VPA043335	VPA035995	VPA030265
Sample Date	05 Sep 2023	05 Oct 2022	06 Oct 2021	01 Oct 2019
Machine Hours	409	384	361	310
Oil Hours	25	23	51	46
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

Mobile Marine Services Inc
01032 Advance Rd South
EAST JORDAN, MI
US 49727
Contact: Duane Kujat
mobilemarine@twin-valley.net
T: Phone
F:

OIL CONDITION

Visc @ 100°C	cSt	13.6	14.3	14.5	14.8
Base Number (BN)	mg KOH/g	9.6	10.7	10.4	---
Oxidation (PA)	%	69	72	67	60

CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.2	0.2	0.2
Nitration (PA)	%	58	61	60	54
Sulfation (PA)	%	56	60	56	52
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	4	3	4
Sodium	ppm	2	3	6	6
Potassium	ppm	0	0	<1	4

WEAR METALS

Iron	ppm	3	6	9	7
Copper	ppm	<1	1	2	2
Lead	ppm	0	<1	<1	0
Tin	ppm	<1	<1	<1	0
Aluminum	ppm	1	<1	0	<1
Chromium	ppm	0	<1	<1	<1
Molybdenum	ppm	41	46	47	46
Nickel	ppm	0	0	<1	<1
Titanium	ppm	0	0	<1	2
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	1
Vanadium	ppm	0	0	0	0

ADDITIVES

Calcium	ppm	1093	1195	1646	1572
Magnesium	ppm	805	764	626	695
Zinc	ppm	836	873	1139	1183
Phosphorus	ppm	640	731	1038	989
Barium	ppm	0	0	0	0
Boron	ppm	44	57	61	56

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 acceptable for the time in service.

Depot: VP443016
Unique No: 10742669
Signed: Don Baldrige
Report Date: 18 Nov 2023

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GRAPHS

