## **OIL ANALYSIS REPORT**

### BLAKE LANTZ PATRICK/502842-5250 VOLVO PENTA A323303 - CENTER DIESEL ENGINE

Sample No: VPA059200

Oil Type: VOLVO VDS-4.5 Premium Motor Oil 15W40

Sample Number		VPA059200	VPA056234		
Sample Date		12 Mar 2024	22 Mar 2023		
Machine Hours		739	614		
Oil Hours		0	0		
Oil Changed		Changed	Changed		
Sample Status		NORMAL	NORMAL		
				_	_
OIL CONDITION					
Visc @ 100°C	cSt	13.1	13.4		
Base Number (BN)	mg KOH/g	<b>10.5</b>	10.4		
Oxidation (PA)	%	68	57		
CONTAMINATION					
Water	%	NEG	NEG		
Soot %	%	0.3	0.5		
Nitration (PA)	%	47	57		
Sulfation (PA)	%	57	55		
Glycol	%	NEG	NEG		
Fuel	%	<1.0	<1.0		
Silicon	ppm		6		
Sodium	ppm	0	4		
Potassium	ppm	<b>1</b>	□ <1		
WEAR METALS	pp				
		- 10	- 47		
Iron	ppm	<b>10</b>	17		
Copper	ppm	<b>10</b>	16		
Lead	ppm	3	9		
Tin	ppm	<b>■</b> <1	1		
Aluminum	ppm	2	5		
Chromium	ppm	<b>■</b> <1	1		
Molybdenum	ppm	54	61		
Nickel	ppm	∎1	□ <1		
Titanium	ppm	<b>■</b> <1	0		
Silver	ppm	0	0		
Manganese	ppm	<b>■</b> <1	□ <1		
Vanadium	ppm	<1	<1		
ADDITIVES					
Calcium	ppm	<b>1408</b>	1124		
Magnesium	ppm	<b>710</b>	946		
Zinc	ppm	<b>1050</b>	1256		
Phosphorus	ppm	884	1066		
Barium	ppm	0	2		

Endor Marine LLC - Coastal Marine - 152124 4300 11th Ave. NW SEATTLE, WA US 98107 Contact: WILLOW YANARELLA service@coastalmarineengine.com T: (206)784-3703 F: (206)784-8823

VOLVO PENTA

#### 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.

 Depot:
 VP794951

 Unique No:
 10928146

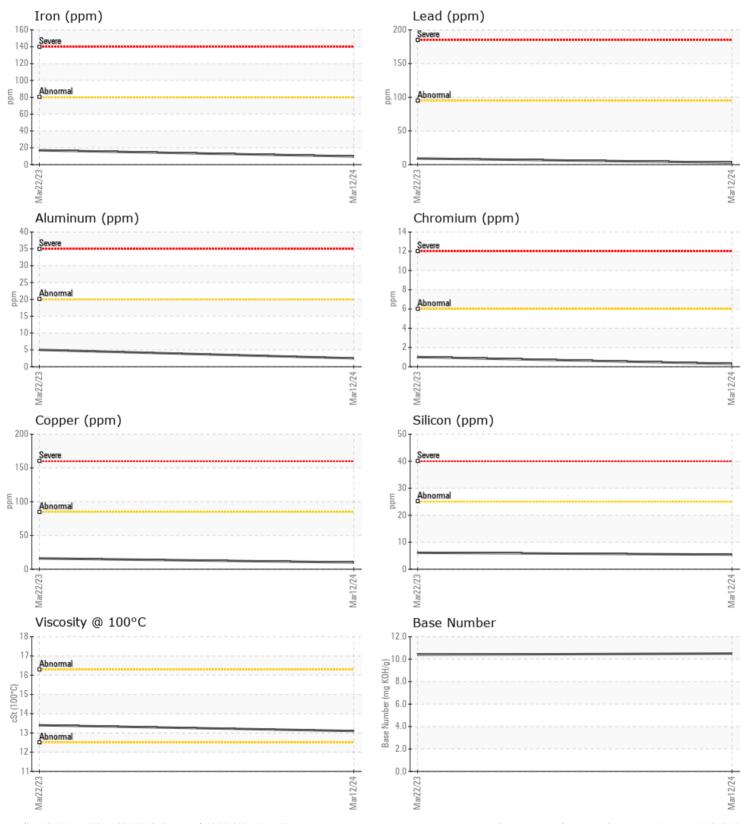
 Signed:
 Don Baldridge

 Report Date:
 18 Mar 2024

# **OIL ANALYSIS REPORT**



#### GRAPHS



Report Id: VP794951 [WUSCAR] 06119313 (Generated: 03/20/2024 15:54:19) Rev: 1

Contact/Location: WILLOW YANARELLA - VP794951