



## GLANELL VOLVO PENTA 3950002174 - PORT IPS

Sample No: VPA036391

Oil Type: VOLVO PENTA GL-5 SAE 75W90

CAMPLE INCORM	ATION				
SAMPLE INFORM	ATIUN				
Sample Number		VPA036391	VPA046476	VPA048388	
Sample Date		04 Dec 2023	07 Jun 2023	05 Jul 2022	
Machine Hours		710	1067	0	
Oil Hours		0	0	0	
Oil Changed		Changed	Not Changd	Changed	
Sample Status		SEVERE	SEVERE	SEVERE	
OIL CONDITION					
Visc @ 40°C	cSt	<b>109</b>	■103	<b>1</b> 01	
CONTAMINATION					
Water	%	<b>1.06</b>	NEG	NEG	
Silicon	ppm	29	12	14	
Sodium	ppm	<b>■31</b>	<b>1</b> 4	<b>3</b>	
Potassium	ppm	<b>7</b>	<b>3</b>	<b>4</b>	
WEAR METALS					
PQ		<b>■22</b>	<b>1</b> 51	■ 255	
Iron	ppm	<b>•</b> 580	• 868	<b>1</b> 758	
Copper	ppm	<b>55</b>	<b>1</b> 6	<b>1</b> 1	
Lead	ppm	0	0	<1	
Tin	ppm	<1	0	0	
Aluminum	ppm	<b>12</b>	<b>1</b> 9	■30	
Chromium	ppm	<b>4</b>	<b>9</b>	<b>9</b>	
Molybdenum	ppm	<b>■&lt;1</b>	<b>2</b>	<b>0</b>	
Nickel	ppm	■3	<b>5</b>	<b>3</b>	
Titanium	ppm	0	<1	<1	
Silver	ppm	0	<1	1	
Manganese	ppm	<b>■</b> 9	<b>1</b> 0	<b>1</b> 0	
Vanadium	ppm	<1	0	0	
ADDITIVES					
Calcium	ppm	■39	<b>■</b> 8	<b>1</b> 6	
Magnesium	ppm	16	<b>4</b>	6	
Zinc	ppm	<b>62</b>	<b>1</b> 42	■33	
Phosphorus	ppm	<b>1337</b>	<b>1</b> 363	<b>1331</b>	
Barium	ppm	<b>0</b>	<b>0</b>	<b>0</b>	
Boron	ppm	<b>212</b>	■281	■309	

## **FULL KEEL MARINE SERVICES**

314 LEGION AVE

ANNAPOLIS, MD US 21401 Contact: Service Manager FULLKEELMARINESERIVES@GMAIL.COM T: (410)507-3542 F:

## Diagnosis

We advise that you check for the source of water entry. Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. Gear wear is indicated. There is a high concentration of water present in the oil. The oil is no longer serviceable due to the presence of contaminants.

Depot:VP1298996Unique No:10778716Signed:Don BaldridgeReport Date:11 Dec 2023

## **OIL ANALYSIS REPORT**



