



## SURVEY ANAPOLIS YC DOUG NELSON VOLVO PENTA 2006021826 - STARBOARD DIESEL ENGINE

Sample No: VPA047029

**Oil Type:** DIESEL ENGINE OIL SAE 15W40

SAMPLE INFORMAT	TION			
Sample Number		VPA047029	VPA009368	 
Sample Date		31 Jul 2023		 
Machine Hours		502	18 May 2018 367	 
Oil Hours		0	0	 
Oil Changed		N/A	Not Changd	 
Sample Status		ABNORMAL	NORMAL	 
OIL CONDITION				
Visc @ 100°C	cSt	<b>13.3</b>	□13.44	 
Base Number (BN)	mg KOH/g	<b>7.4</b>		 
Oxidation (PA)	%	57	<b>■</b> 48	 
CONTAMINATION				
Soot %	%	<b>0.1</b>	□0.1	 
Nitration (PA)	%	48	50	 
Sulfation (PA)	%	50	<b>4</b> 4	 
Glycol	%	NEG	NEG	
•		<1.0		 
Fuel	%		<1.0	 
Silicon	ppm	<u>▲</u> 55	<b>4</b>	 
Sodium	ppm	<b>■&lt;1</b>	<b>3</b>	 
Potassium	ppm	<b></b>	<b>1</b> 3	 
WEAR METALS				
Iron	ppm	<b>□</b> 7	<b>7</b>	 
Copper	ppm	<b>■&lt;1</b>	<b>2</b>	 
Lead	ppm	■0	□0	 
Tin	ppm	<b>■</b> <1	0	 
Aluminum	ppm	<b>11</b>	<b>1</b> 2	 
Chromium	ppm	<b>=</b> <1	<1	 
Molybdenum	ppm	<b>63</b>	<b>6</b> 1	 
Nickel	ppm	<b>0</b> 0	<1	 
Titanium		<b>0</b>	<b>=</b> <1	 
Silver	ppm	<b>=</b> <1	0	 
	ppm	_		
Manganese Vanadium	ppm	<b>■</b> <1	< 1	 
	ppm	0	U	 
ADDITIVES				
Calcium	ppm	<b>1101</b>	1110	 
Magnesium	ppm	<b>1062</b>	<b>1012</b>	 
Zinc	ppm	<b>1357</b>	<b>1</b> 074	 
Phosphorus	ppm	<b>1122</b>	962	 
Barium	ppm	■0	<b>0</b>	 
Boron	ppm	■3	8	 
			ū	

## Suncoast Diesel Marine Inc.

610 Mount Vernan St OLDSMAR, FL US 34677 Contact: MARK WARREN oldsmar@suncoastdmi.com T: (813)475-5942 F: (813)475-5943

## Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. Elemental level of silicon (Si) above normal indicating ingress of seal material. 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:VP945077Unique No:10586907Signed:Doug BogartReport Date:06 Aug 2023

## **OIL ANALYSIS REPORT**



