## **OIL ANALYSIS REPORT**

### GAVIN JOHNSTON PATRICK 502757/9400 VOLVO PENTA 2009018582 - STARBOARD DIESEL ENGINE

Sample No: VPA059204

Oil Type: SHELL ROTELLA T 15W40

#### SAMPLE INFORMATION

JAMIFLE INFURMA				
Sample Number		VPA059204	 	
Sample Date		14 Feb 2024	 	
Machine Hours		1095	 	
Oil Hours		0	 	
Oil Changed		Not Changd	 	
Sample Status		NORMAL	 	
OIL CONDITION				
Visc @ 100°C	cSt	13.2	 	
Base Number (BN)	mg KOH/g	9.6	 	
Oxidation (PA)	%	53	 	
CONTAMINATION				
Water	%	NEG	 	
Soot %	%	0.1	 	
Nitration (PA)	%	42	 	
Sulfation (PA)	%	51	 	
Glycol	%	NEG	 	
Fuel	%	<1.0	 	
Silicon	ppm	3	 	
Sodium	ppm	<b>  </b> <1	 	
Potassium	ppm	<b>■</b> <1	 	
WEAR METALS				
Iron	ppm	2	 	
Copper	ppm	<b>1</b>	 	
Lead	ppm	0	 	
Tin	ppm	<b></b> <1	 	
Aluminum	nnm			
	ppm	<b>□</b> <1	 	
Chromium	ppm	<b>□</b> <1 <b>□</b> 0		
Chromium Molybdenum				
	ppm	0		
Molybdenum	ppm ppm	0 51	 	
Molybdenum Nickel	ppm ppm ppm	0 51 0	 	 
Molybdenum Nickel Titanium	ppm ppm ppm ppm	0 51 0 <1	 	
Molybdenum Nickel Titanium Silver	ppm ppm ppm ppm ppm	0 51 0 <1 0		
Molybdenum Nickel Titanium Silver Manganese	ppm ppm ppm ppm ppm ppm	0 51 0 <1 0 0		
Molybdenum Nickel Titanium Silver Manganese Vanadium ADDITIVES	ppm ppm ppm ppm ppm ppm ppm	0 51 0 <1 0 0 0		
Molybdenum Nickel Titanium Silver Manganese Vanadium ADDITIVES Calcium	ppm ppm ppm ppm ppm ppm ppm	0 51 0 <1 0 0 0 0 942		
Molybdenum Nickel Titanium Silver Manganese Vanadium ADDITIVES Calcium Magnesium	ppm ppm ppm ppm ppm ppm ppm	0 51 0 <1 0 0 0 0 942 884		
Molybdenum Nickel Titanium Silver Manganese Vanadium ADDITIVES Calcium Magnesium Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	0 51 0 <1 0 0 0 0 942 884 1140		Image: Section of the section of t
Molybdenum Nickel Titanium Silver Manganese Vanadium ADDITIVES Calcium Magnesium Zinc Phosphorus	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	0 51 0 <1 0 0 0 0 942 884 1140 938		
Molybdenum Nickel Titanium Silver Manganese Vanadium ADDITIVES Calcium Magnesium Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	0 51 0 <1 0 0 0 0 942 884 1140		Image: Section of the section of t

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

#### 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.

Contact/Location: WILLOW YANARELLA - VP794951

VP794951

10884404

Don Baldridge

19 Feb 2024

Depot:

Signed:

Unique No:

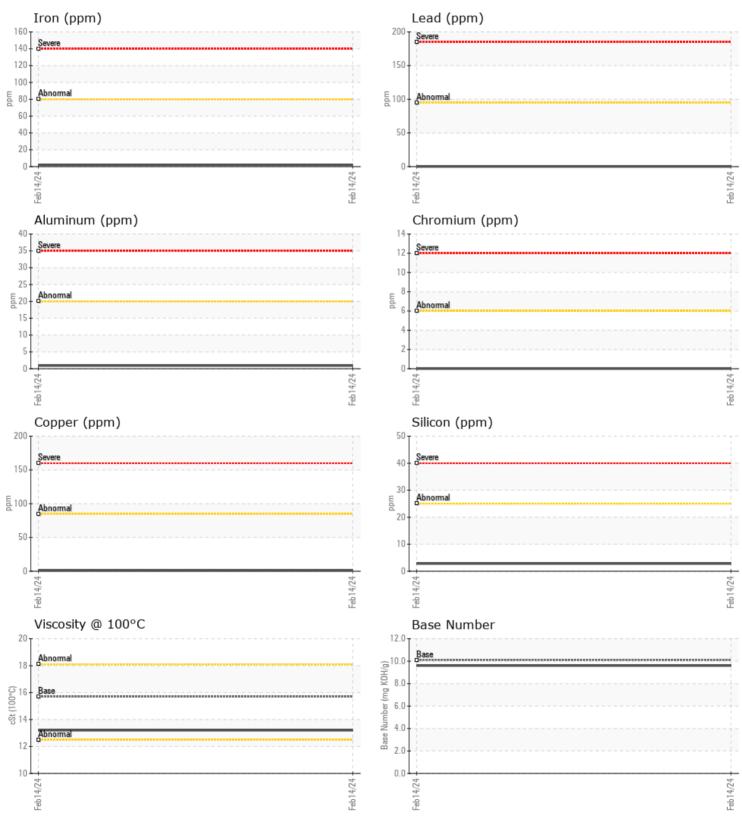
Report Date:



# **OIL ANALYSIS REPORT**



#### GRAPHS



Report Id: VP794951 [WUSCAR] 06091551 (Generated: 02/22/2024 11:45:52) Rev: 1

Contact/Location: WILLOW YANARELLA - VP794951