## **OIL ANALYSIS REPORT**

## **PORT - PORT MAIN ENGINE**

Sample No:VPA053525Oil Type:SHELL ROTELLA T 15W40

#### SAMPLE INFORMATION

Sample Number Sample Date Machine Hours Oil Hours Oil Changed Sample Status		VPA053525 11 Jul 2024 0 541 Changed ABNORMAL	       	   
OIL CONDITION				
Visc @ 100°C Oxidation (PA)	cSt %	■13.5 81	 	
CONTAMINATION				
Water	%	NEG	 	
Soot %	%	0.8	 	
Nitration (PA)	%	83	 	
Sulfation (PA)	%	65	 	
Glycol	%	NEG	 	
Fuel	%	<1.0	 	
Silicon	ppm	<b>1</b> 4	 	
Sodium	ppm	<b>4</b>	 	
Potassium	ppm	2	 	

## WEAR METALS

Iron	ppm	22	 	
Copper	ppm	143	 	
Lead	ppm	4	 	
Tin	ppm	0	 	
Aluminum	ppm	3	 	
Chromium	ppm	2	 	
Molybdenum	ppm	45	 	
Nickel	ppm	<u> </u>	 	
Titanium	ppm	0	 	
Silver	ppm	□ <1	 	
Manganese	ppm	<b>1</b>	 	
Vanadium	ppm	0	 	

#### ADDITIVES

Calcium	ppm	<b>1917</b>	 	
Magnesium	ppm	345	 	
Zinc	ppm	<b>1157</b>	 	
Phosphorus	ppm	943	 	
Barium	ppm	■<1	 	
Boron	ppm	31	 	

**1000 ISLANDS CRUISES** 248 ONTARIO ST

KINGSTON, ON CA K7L 5P7 Contact: Service Manager info@ktic.ca T: (613)549-5544 F:

### Diagnosis

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.Nickel ppm levels are abnormal. Copper ppm levels are noted. Exhaust valve wear is indicated. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

 Depot:
 100KIN

 Unique No:
 5813127

 Signed:
 Kevin Marson

 Report Date:
 15 Jul 2024

Report Id: 100KIN [WCAMIS] 02647575 (Generated: 07/18/2024 13:03:59) Rev: 1

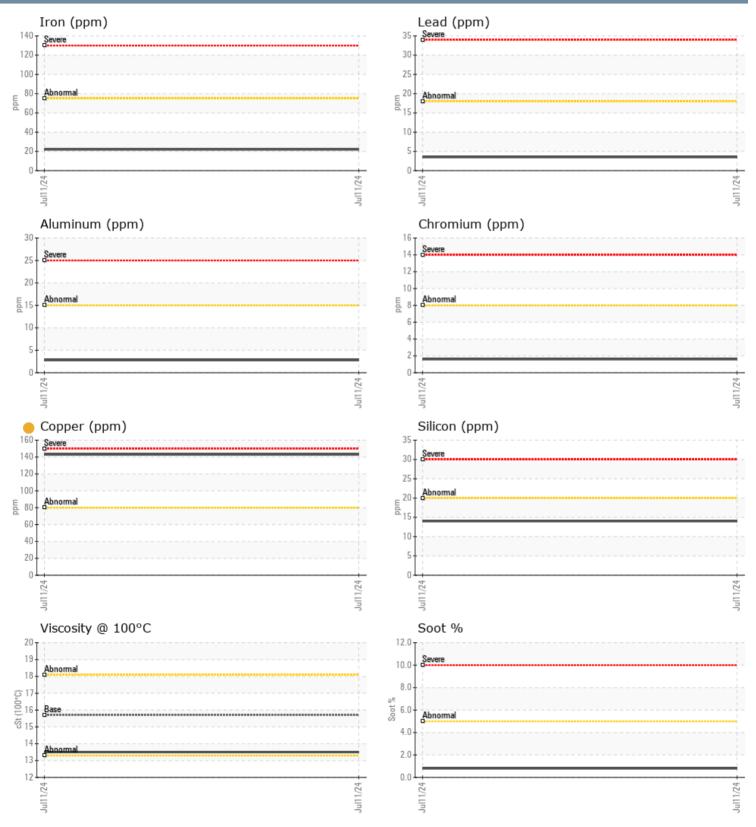
Contact/Location: Service Manager - 100KIN



# **OIL ANALYSIS REPORT**



#### GRAPHS



Report Id: 100KIN [WCAMIS] 02647575 (Generated: 07/18/2024 13:04:01) Rev: 1

Contact/Location: Service Manager - 100KIN