## **OIL ANALYSIS REPORT**

### JMADRA VOLVO PENTA A364865 - STARBOARD DIESEL ENGINE

Sample No: VPA036389

Oil Type: VOLVO PENTA SAE 15W40

#### SAMPLE INFORMATION VPA036389 VPA033923 Sample Number 24 Sep 2021 Sample Date 15 Nov 2023 Machine Hours 1434 0 0 **Oil Hours** 0 Oil Changed Changed Changed NORMAL Sample Status NORMAL **OIL CONDITION** Visc @ 100°C cSt 13.4 13.6 Base Number (BN) mg KOH/g 8.0 Oxidation (PA) % 54 58 CONTAMINATION % Water NEG NFG % Soot % 0.1 0.3 Nitration (PA) % 43 53 Sulfation (PA) % 49 55 Glycol % NEG NFG Fuel % <1.0 <1.0 Silicon 6 4 ppm Sodium 0 🔲 < ppm Potassium 2 < 1 ppm WEAR METALS Iron 8 11 ppm **4** 7 Copper ppm Lead 14 ppm 13 Tin ■ <1 □ < 1 ppm Aluminum 3 ppm 2 Chromium <1 < 1 ppm Molybdenum ppm 59 63 Nickel **||** <1 1 ppm Titanium ppm **||** <1 0 Silver 0 ppm Manganese <1 < 1 ppm 0 Vanadium ppm 0 **ADDITIVES** 1024 Calcium 1063 ppm Magnesium 930 938 ppm Zinc ppm 1229 1135 Phosphorus ppm 1079 1022 Barium 9 🔲 0 ppm Boron ppm 0 4

Unique No:10752363Signed:Don BaldridgeReport Date:22 Nov 2023

Depot:

Contact/Location: Service Manager - VP1298996

VP1298996



FULL KEEL MARINE SERVICES 314 LEGION AVE ANNAPOLIS, MD US 21401 Contact: Service Manager FULLKEELMARINESERIVES@GMAIL.COM T: (410)507-3542

#### Diagnosis

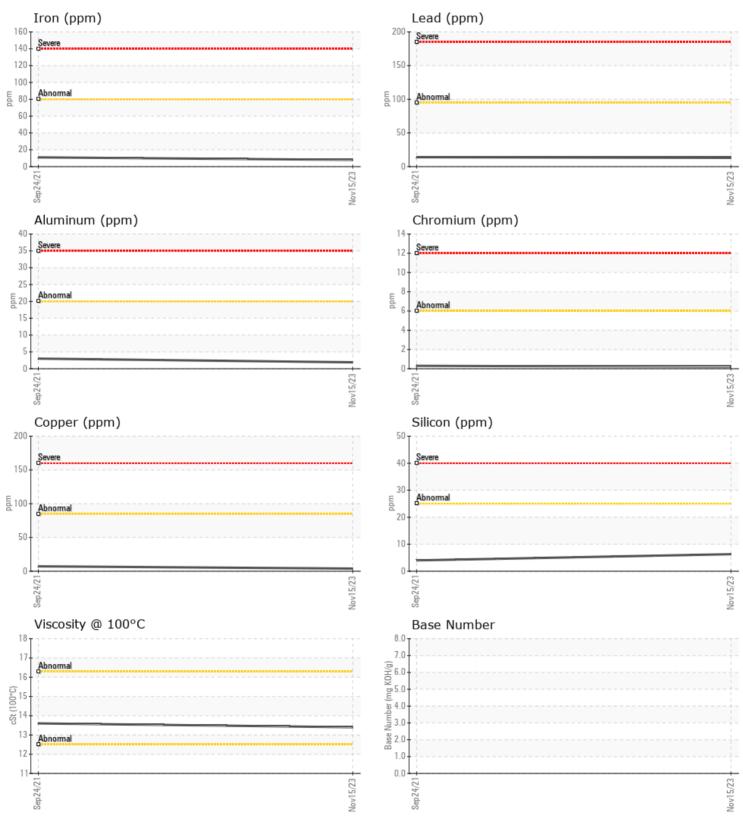
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Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

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#### GRAPHS



Report Id: VP1298996 [WUSCAR] 06013219 (Generated: 11/22/2023 17:54:26) Rev: 1

Contact/Location: Service Manager - VP1298996