## **OIL ANALYSIS REPORT**

### DIAMOND VOLVO PENTA A320486 - STARBOARD DIESEL ENGINE

Sample No: VPA045907

Oil Type: DIESEL ENGINE OIL SAE 40

#### SAMPLE INFORMATION VPA045907 VPA043711 Sample Number Sample Date 24 Oct 2023 02 Sep 2022 Machine Hours 553 459 0 0 **Oil Hours** Oil Changed N/A N/A NORMAL NORMAL Sample Status **OIL CONDITION** Visc @ 100°C cSt 13.7 13.8 Base Number (BN) mg KOH/g 9.1 10.8 Oxidation (PA) % 58 38 CONTAMINATION Soot % % 0.1 0.2 % Nitration (PA) 46 40 Sulfation (PA) % 52 42 % Glycol NEG NEG Fuel % <1.0 <1.0 Silicon ppm 6 3 Sodium 2 0 ppm Potassium 2 0 ppm WEAR METALS Iron ppm 2 8 Copper **||** <1 2 ppm < 1 Lead ppm <1 Tin ■ <1 <1 ppm Aluminum ppm 1 < 1</p> <1 Chromium 0 ppm Molybdenum 38 ppm 39 Nickel ■ <1 <1 ppm Titanium 0 🔲 0 ppm Silver ppm 0 🔲 < 1 Manganese **||** <1 < 1 ppm Vanadium 0 0 ppm **ADDITIVES** Calcium 1494 1109 ppm Magnesium 390 904 ppm 1095 Zinc ppm 1136 Phosphorus ppm 930 921 Barium ppm 0 🔲 0 84 18 Boron ppm

VOLVO PENTA

MAKO MARINE

117 HUDSON AVE FREEPORT, NY US 11520 Contact: PAUL FLOOD makomarine@optonline.net T: (516)378-7331 F: x:

#### 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 suitable for further service.

 Depot:
 VP1134331

 Unique No:
 10714092

 Signed:
 Don Baldridge

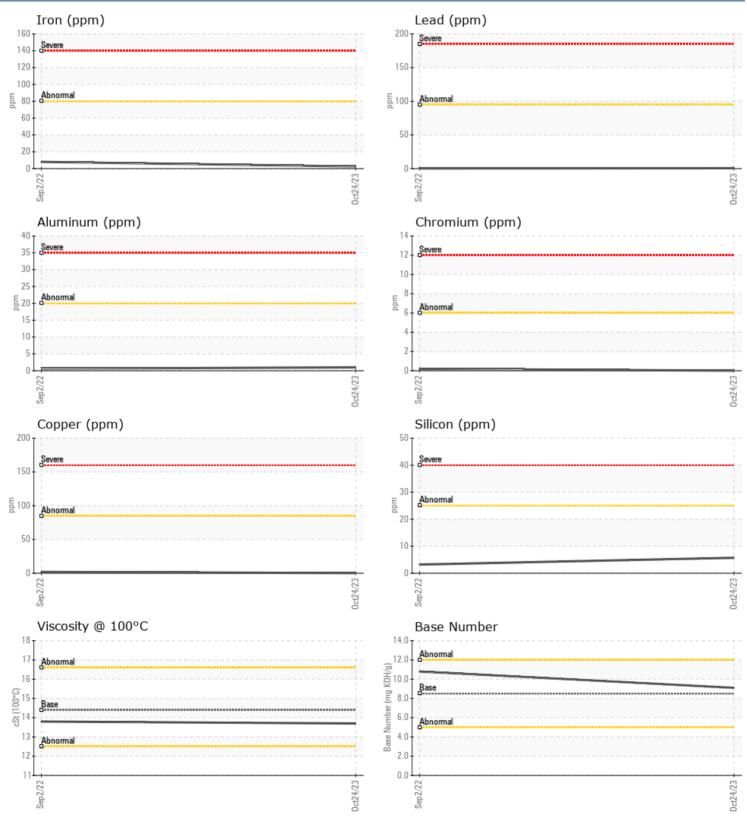
 Report Date:
 30 Oct 2023

Contact/Location: PAUL FLOOD - VP1134331

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#### GRAPHS



Report Id: VP1134331 [WUSCAR] 05991430 (Generated: 10/30/2023 16:00:41) Rev: 1

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