OIL ANALYSIS REPORT

SHIREY CATERPILLAR 9WR02925 - STARBOARD DIESEL ENGINE

Sample No: VPA058387

Oil Type: SHELL ROTELLA T 15W40

SAMPLE INFORMATION VPA058387 Sample Number Sample Date 25 Nov 2023 Machine Hours 1711 **Oil Hours** 126 Oil Changed Changed NORMAL Sample Status Т٠ **OIL CONDITION** F: Visc @ 100°C cSt 13.3 Base Number (BN) mg KOH/g 8.4 Oxidation (PA) % 66 CONTAMINATION Water % NEG % Soot % 0.7 Nitration (PA) % 63 Sulfation (PA) % 64 Glycol % NEG Fuel % <1.0 Silicon 4 ppm Sodium **||** <1 ppm Potassium ppm **||** < 1 WEAR METALS Iron 28 ppm 38 Copper ppm Lead ■ <1 ppm Tin 0 ppm Aluminum ppm 2 Chromium 0 ppm Molybdenum 88 ppm Nickel 0 🔲 ppm Titanium ppm 0 Silver 0 ppm Manganese 0 🔲 ppm Vanadium ppm 0 **ADDITIVES** Calcium 1663 ppm 604 Magnesium ppm Zinc ppm 1043 Phosphorus ppm 834 Barium 0 🔲 ppm Boron ppm 255 Depot:

Outstanding Marine PO Box 274 GALENA, MD US 21635 Contact: Ronda Bolinger rlwb@verizon.net T:

Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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:
 VP153685

 Unique No:
 10767891

 Signed:
 Sean Felton

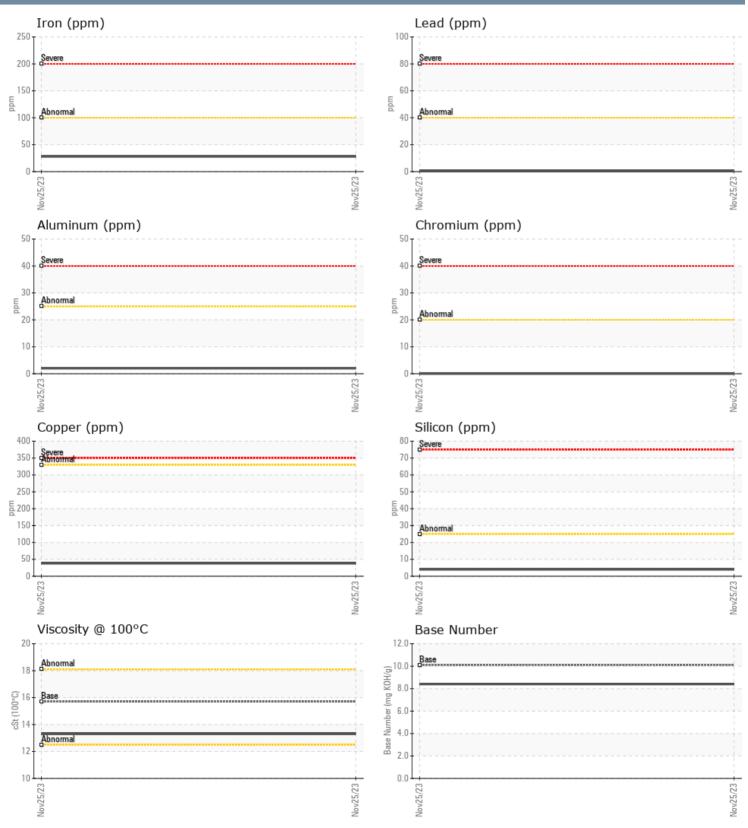
 Report Date:
 05 Dec 2023

Contact/Location: Ronda Bolinger - VP153685

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GRAPHS



Report Id: VP153685 [WUSCAR] 06023391 (Generated: 12/05/2023 16:58:19) Rev: 1

Contact/Location: Ronda Bolinger - VP153685