## **OIL ANALYSIS REPORT**

#### LOU BRITO 205604 VOLVO PENTA 2003011980 - STARBOARD DIESEL ENGINE

Sample No: VPA046359

**Oil Type: VOLVO PENTA SAE 15W40** 

#### SAMPLE INFORMATION VPA046359 VPA046355 Sample Number Sample Date 20 May 2024 10 Apr 2023 Machine Hours 1396 1407 **Oil Hours** 41 50 Oil Changed Not Changd Changed SEVERE Sample Status SEVERE **OIL CONDITION** 14.5 Visc @ 100°C 14.1 cSt Base Number (BN) mg KOH/g 10.5 6.5 Oxidation (PA) 61 67 % CONTAMINATION Water % NEG NFG % Soot % 0.1 0.2 Nitration (PA) % 60 68 Sulfation (PA) % 51 54 Glycol % NEG NFG Fuel % <1.0 <1.0 Silicon **A** 31 **3**8 ppm Sodium 35 40 ppm Potassium 5 ppm 6 WEAR METALS **4**12 Iron ▲ 328 ppm 60 Copper ppm 77 Lead ppm 4 2 Tin 3 1 ppm **1**20 Aluminum 🔺 92 ppm **A** 21 **A** 27 Chromium ppm Molybdenum 80 82 ppm Nickel 4 4 ppm Titanium 5 🔲 6 ppm Silver ■ <1 0 ppm Manganese 3 4 ppm Vanadium ppm <1 <1 **ADDITIVES** Calcium 1410 ■1492 ppm 824 649 Magnesium ppm Zinc ppm 1366 1338 Phosphorus ppm 1148 1061 Barium 0 0 ppm Boron ppm 128 183

Depot: Unique No: 11046634 Signed: Sean Felton Report Date: 29 May 2024

**Cogswell Marine & Motorsports, Inc** 865 Stella Street CHULA VISTA, CA US 91911 Contact: Mitchell Cogswell Cogswellmarinemotorsports@gmail.com Τ· F:

### Diagnosis

We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.Piston, ring and cylinder wear is indicated. Elemental level of silicon (Si) above normal indicating ingress of seal material. The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.



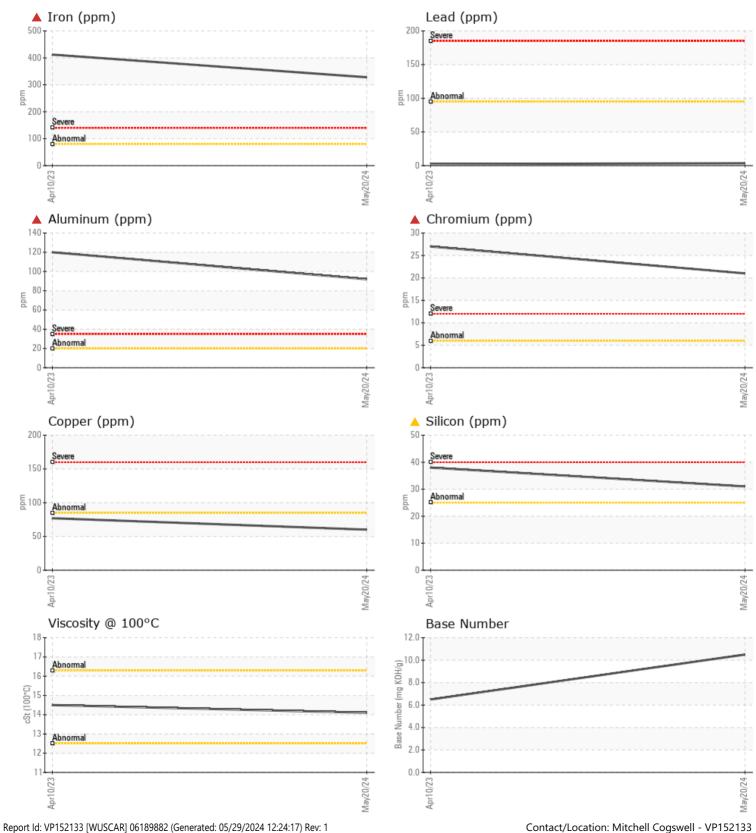
Contact/Location: Mitchell Cogswell - VP152133

VP152133

# **OIL ANALYSIS REPORT**



### GRAPHS



on witchen cogsweir vi 152155