## **OIL ANALYSIS REPORT**

### **VOLVO PENTA**

#### VERHEEM VERHEEM VOLVO PENTA A334204 - STARBOARD DIESEL ENGINE

Sample No: VPA053616

Oil Type: {unknown}

#### SAMPLE INFORMATION

| Sample Number    |   | VPA053616   | <br> |  |
|------------------|---|-------------|------|--|
| Sample Date      |   | 19 Apr 2024 | <br> |  |
| Machine Hours    |   | 143         | <br> |  |
| Oil Hours        |   | 0           | <br> |  |
| Oil Changed      |   | N/A         | <br> |  |
| Sample Status    |   | NORMAL      | <br> |  |
|                  |   |             |      |  |
| OIL CONDITION    |   |             |      |  |
| Visc @ 100°C     | cSt                                     | 14.6        | <br> |  |
| Base Number (BN) | mg KOH/g                                | 8.6         | <br> |  |
| Oxidation (PA)   | %                                       | 62          | <br> |  |
|                  | 70                                      |             |      |  |
| CONTAMINATION    |   |             |      |  |
| Mater            | 0/                                      | NEC         |      |  |
| Water            | %                                       | NEG         | <br> |  |
| Soot %           | %                                       | 0.3         | <br> |  |
| Nitration (PA)   | %                                       | 54          | <br> |  |
| Sulfation (PA)   | %                                       | 53          | <br> |  |
| Glycol           | %                                       | NEG         | <br> |  |
| Fuel             | %                                       | <1.0        | <br> |  |
| Silicon          | ppm                                     | <b>1</b> 3  | <br> |  |
| Sodium           | ppm                                     | 2           | <br> |  |
| Potassium        | ppm                                     | 6           | <br> |  |
| WEAR METALS      |   |             |      |  |
| Iron             | ppm                                     | 56          | <br> |  |
| Copper           | ppm                                     | 8           | <br> |  |
| Lead             | ppm                                     | 2           | <br> |  |
| Tin              | ppm                                     | 1           | <br> |  |
| Aluminum         | ppm                                     | 2           | <br> |  |
| Chromium         | ppm                                     | 1           | <br> |  |
| Molybdenum       | ppm                                     | 9           | <br> |  |
| Nickel           | ppm                                     |             | <br> |  |
| Titanium         | ppm                                     | <b>□</b> <1 | <br> |  |
| Silver           | ppm                                     | 0           | <br> |  |
| Manganese        | ppm                                     | <br><1      | <br> |  |
| Vanadium         | ppm                                     | <1          | <br> |  |
|                  | h- h- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 |             | <br> |  |
| ADDITIVES        |   |             |      |  |
| Calcium          | maa                                     | 2334        | <br> |  |
|                  |   |             |      |  |

| Calcium    | ppm | 2334       | <br> |  |
|------------|-----|------------|------|--|
| Magnesium  | ppm | <b>118</b> | <br> |  |
| Zinc       | ppm | 🔲 1191     | <br> |  |
| Phosphorus | ppm | 938        | <br> |  |
| Barium     | ppm | 0          | <br> |  |
| Boron      | ppm | <b>150</b> | <br> |  |

Harry`s Marine Service LLC

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#### Diagnosis

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:
 VP867279

 Unique No:
 10992000

 Signed:
 Doug Bogart

 Report Date:
 22 Apr 2024

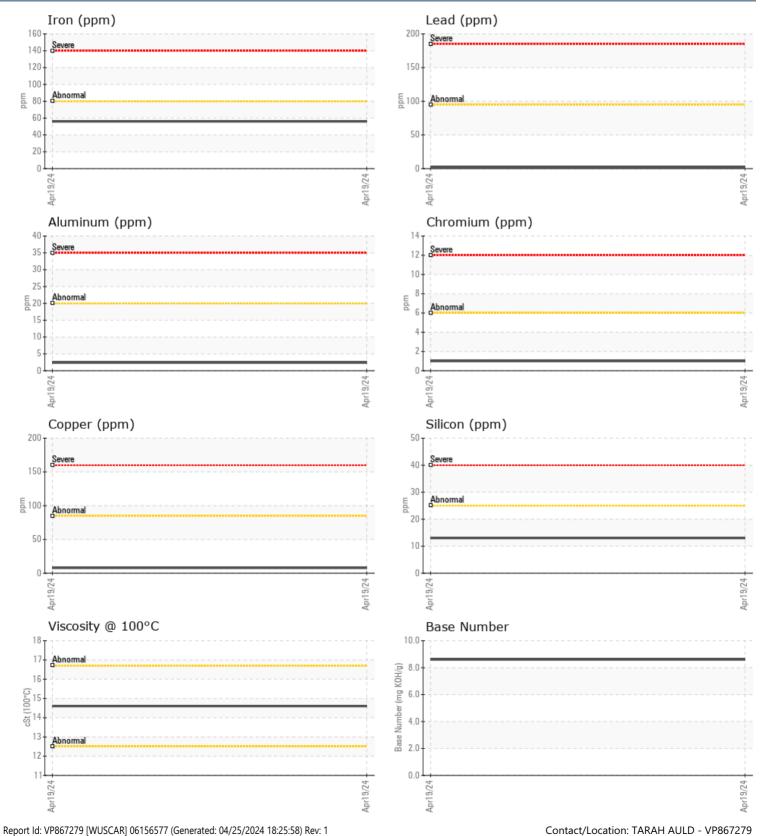
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Contact/Location: TARAH AULD - VP867279

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#### GRAPHS



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