## **OIL ANALYSIS REPORT**

### PLATYPUS MARINE SAM VOLVO PENTA A 1089722 - STARBOARD DIESEL ENGINE

Sample No: VPA055633

Oil Type: VOLVO PENTA SAE 15W40

#### SAMPLE INFORMATION

| Sample Number    |          | VPA055633   | <br> |  |
|------------------|----------|-------------|------|--|
| Sample Date      |          | 29 Jun 2023 | <br> |  |
| Machine Hours    |          | 0           | <br> |  |
| Oil Hours        |          | 0           | <br> |  |
| Oil Changed      |          | Changed     | <br> |  |
| Sample Status    |          | ABNORMAL    | <br> |  |
|                  |          |             |      |  |
| OIL CONDITION    |          |             |      |  |
| Visc @ 100°C     | cSt      | <b>13.3</b> | <br> |  |
| Base Number (BN) | mg KOH/g | 9.6         | <br> |  |
| Oxidation (PA)   | %        | 69          | <br> |  |
|                  |          |             |      |  |
| CONTAMINATION    |          |             |      |  |
| C + 0/           | 0/       | -02         |      |  |
| Soot %           | %        | 0.3         | <br> |  |
| Nitration (PA)   | %        | 55          | <br> |  |
| Sulfation (PA)   | %        | 63          | <br> |  |
| Glycol           | %        | NEG         | <br> |  |
| Fuel             | %        | <1.0        | <br> |  |
| Silicon          | ppm      | 21          | <br> |  |
| Sodium           | ppm      | 7           | <br> |  |
| Potassium        | ppm      | 8           | <br> |  |
| WEAR METALS      |          |             |      |  |

#### WEAR METALS

| Iron       | ppm | 27         | <br> |  |
|------------|-----|------------|------|--|
| Copper     | ppm | <b>1</b> 8 | <br> |  |
| Lead       | ppm | 8          | <br> |  |
| Tin        | ppm | 2          | <br> |  |
| Aluminum   | ppm | <u> </u>   | <br> |  |
| Chromium   | ppm | 5          | <br> |  |
| Molybdenum | ppm | 84         | <br> |  |
| Nickel     | ppm | 3          | <br> |  |
| Titanium   | ppm | ■ <1       | <br> |  |
| Silver     | ppm | 0          | <br> |  |
| Manganese  | ppm | <b>1</b>   | <br> |  |
| Vanadium   | ppm | <1         | <br> |  |

#### ADDITIVES

| Calcium    | ppm | 1576 | <br> |  |
|------------|-----|------|------|--|
| Magnesium  | ppm | 610  | <br> |  |
| Zinc       | ppm | 894  | <br> |  |
| Phosphorus | ppm | 731  | <br> |  |
| Barium     | ppm | 0    | <br> |  |
| Boron      | ppm | 280  | <br> |  |

Endor Marine LLC - Coastal Marine - 152124 4300 11th Ave. NW SEATTLE, WA US 98107 Contact: WILLOW YANARELLA service@coastalmarineengine.com T: (206)784-3703 F: (206)784-8823

#### Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.Aluminum ppm levels are abnormal. Piston wear is indicated. 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.

 Depot:
 VP794951

 Unique No:
 10552925

 Signed:
 Angela Borella

 Report Date:
 14 Jul 2023

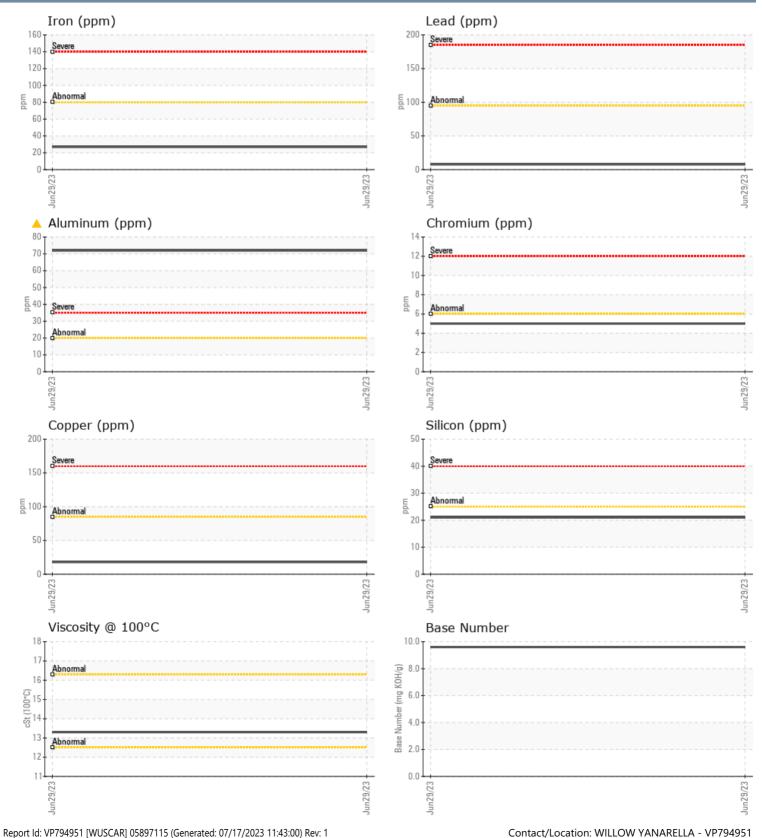
Contact/Location: WILLOW YANARELLA - VP794951



# **OIL ANALYSIS REPORT**



#### GRAPHS



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