



# OIL ANALYSIS REPORT

WEAR  
CONTAMINATION  
FLUID CONDITION

**ATTENTION**  
**NORMAL**  
**NORMAL**

Area

**GENE DORN [GREG E.]**

Machine Id

**VOLVO PENTA 3200003533**

Component

**Starboard IPS**

Fluid

**GEAR OIL SAE 75W90 (4 GAL)**

## RECOMMENDATION

The oil 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.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number  |     | Client Info |           | <b>VPA058563</b>   | VPA056257   | ---      |
| Sample Date    |     | Client Info |           | <b>26 Jun 2024</b> | 30 Jun 2023 | ---      |
| Machine Age    | hrs | Client Info |           | <b>168</b>         | 40          | ---      |
| Oil Age        | hrs | Client Info |           | <b>127</b>         | 40          | ---      |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | ---      |
| Oil Changed    |     | Client Info |           | <b>Changed</b>     | Changed     | ---      |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Changed     | ---      |
| Sample Status  |     |             |           | <b>ATTENTION</b>   | NORMAL      | ---      |

## WEAR

The copper level is abnormal. All other component wear rates are normal.

|              |        |             |      |             |      |     |
|--------------|--------|-------------|------|-------------|------|-----|
| PQ           |        | ASTM D8184  |      | <b>23</b>   | 16   | --- |
| Iron         | ppm    | ASTM D5185m | >275 | <b>104</b>  | 20   | --- |
| Chromium     | ppm    | ASTM D5185m | >4   | <b>0</b>    | 0    | --- |
| Nickel       | ppm    | ASTM D5185m | >4   | <b>2</b>    | 0    | --- |
| Titanium     | ppm    | ASTM D5185m | >3   | <b>0</b>    | 0    | --- |
| Silver       | ppm    | ASTM D5185m |      | <b>0</b>    | 0    | --- |
| Aluminum     | ppm    | ASTM D5185m | >10  | <b>4</b>    | <1   | --- |
| Lead         | ppm    | ASTM D5185m | >4   | <b>0</b>    | 0    | --- |
| Copper       | ppm    | ASTM D5185m | >30  | <b>30</b>   | 8    | --- |
| Tin          | ppm    | ASTM D5185m | >3   | <b>0</b>    | 0    | --- |
| Vanadium     | ppm    | ASTM D5185m |      | <b>0</b>    | 0    | --- |
| White Metal  | scalar | *Visual     | NONE | <b>NONE</b> | NONE | --- |
| Yellow Metal | scalar | *Visual     | NONE | <b>NONE</b> | NONE | --- |

## CONTAMINATION

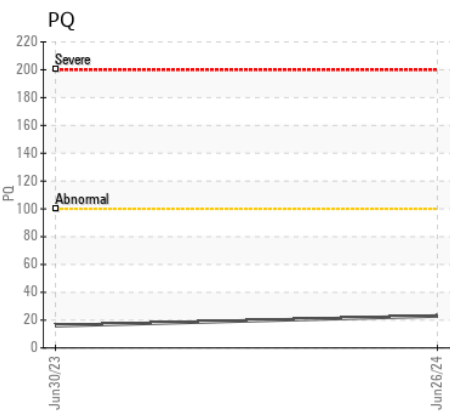
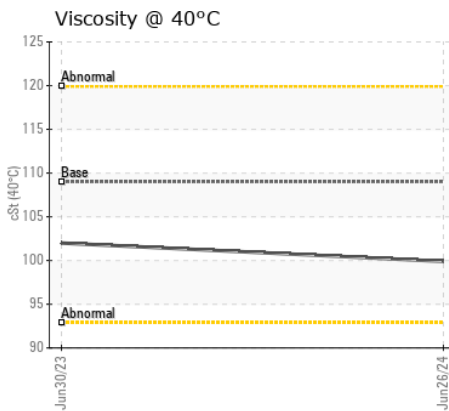
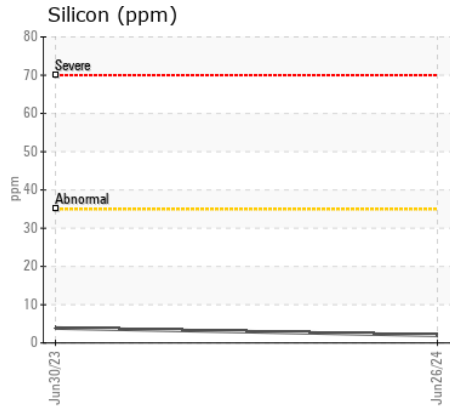
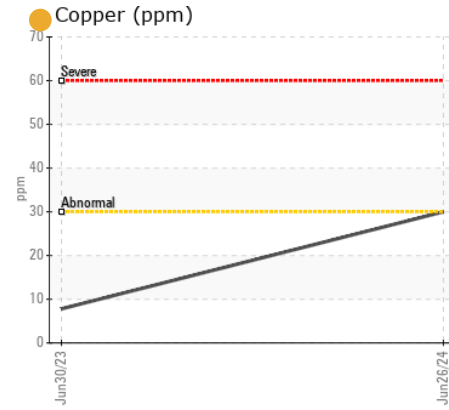
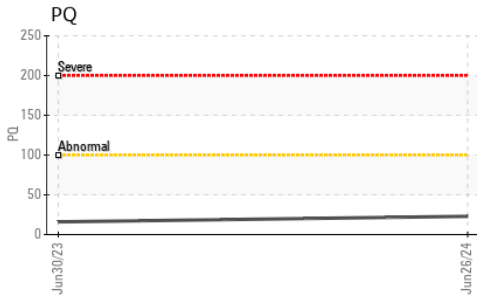
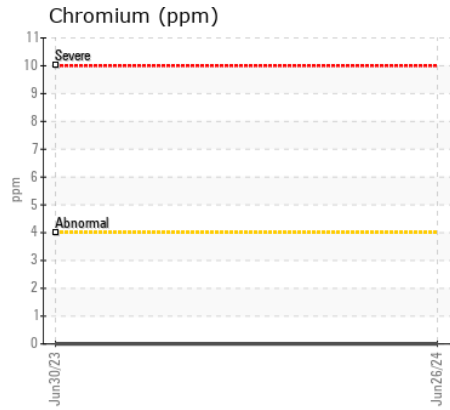
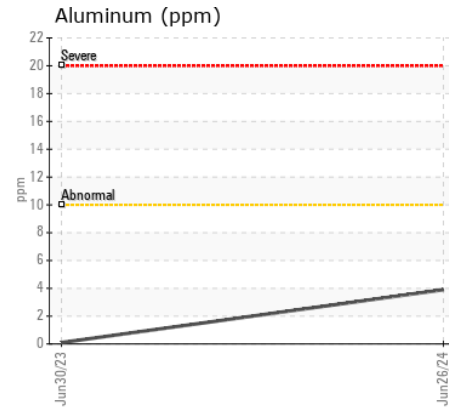
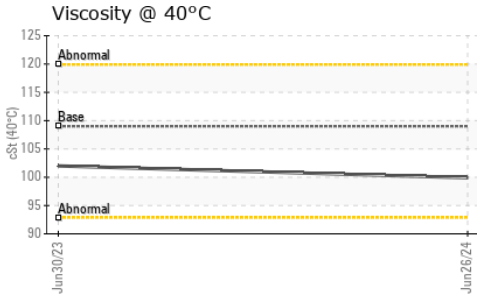
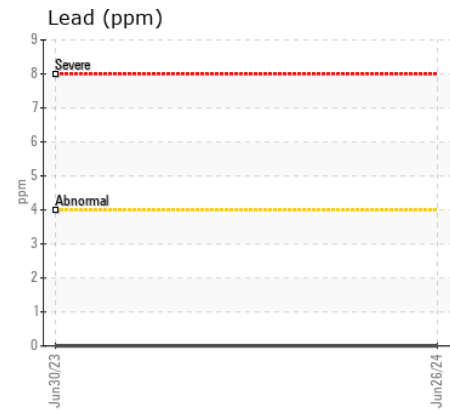
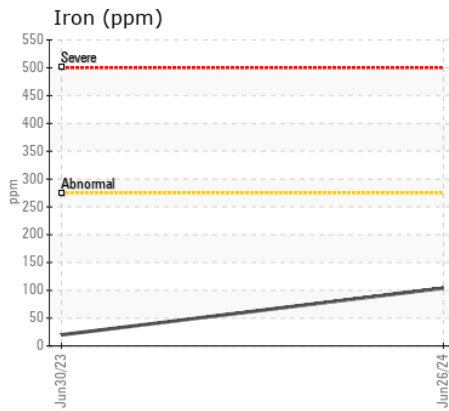
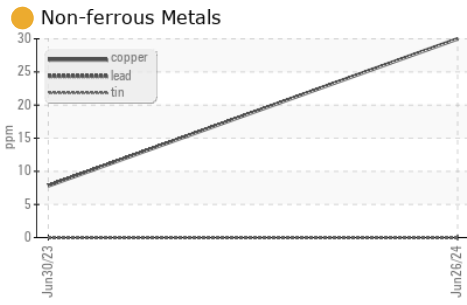
There is no indication of any contamination in the oil.

|                  |        |             |       |              |       |     |
|------------------|--------|-------------|-------|--------------|-------|-----|
| Silicon          | ppm    | ASTM D5185m | >35   | <b>2</b>     | 4     | --- |
| Potassium        | ppm    | ASTM D5185m | >20   | <b>5</b>     | 8     | --- |
| Water            |        | WC Method   | >0.2  | <b>NEG</b>   | NEG   | --- |
| Silt             | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | --- |
| Debris           | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | --- |
| Sand/Dirt        | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | --- |
| Appearance       | scalar | *Visual     | NORML | <b>NORML</b> | NORML | --- |
| Odor             | scalar | *Visual     | NORML | <b>NORML</b> | NORML | --- |
| Emulsified Water | scalar | *Visual     | >0.2  | <b>NEG</b>   | NEG   | --- |

## FLUID CONDITION

The condition of the oil is acceptable for the time in service.

|             |     |             |       |              |       |     |
|-------------|-----|-------------|-------|--------------|-------|-----|
| Sodium      | ppm | ASTM D5185m |       | <b>10</b>    | 4     | --- |
| Boron       | ppm | ASTM D5185m | 400   | <b>250</b>   | 738   | --- |
| Barium      | ppm | ASTM D5185m | 200   | <b>0</b>     | 0     | --- |
| Molybdenum  | ppm | ASTM D5185m | 12    | <b>0</b>     | 0     | --- |
| Manganese   | ppm | ASTM D5185m |       | <b>4</b>     | 3     | --- |
| Magnesium   | ppm | ASTM D5185m | 12    | <b>84</b>    | 970   | --- |
| Calcium     | ppm | ASTM D5185m | 150   | <b>11</b>    | 20    | --- |
| Phosphorus  | ppm | ASTM D5185m | 1650  | <b>1438</b>  | 1607  | --- |
| Zinc        | ppm | ASTM D5185m | 125   | <b>16</b>    | 0     | --- |
| Sulfur      | ppm | ASTM D5185m | 22500 | <b>28866</b> | 25056 | --- |
| Visc @ 40°C | cSt | ASTM D445   | 109   | <b>99.9</b>  | 102   | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VPA058563 **Received** : 03 Jul 2024  
**Lab Number** : 06227869 **Tested** : 05 Jul 2024  
**Unique Number** : 11111362 **Diagnosed** : 07 Jul 2024 - Don Baldrige  
**Test Package** : MOB 1 ( Additional Tests: PQ )

**Galati Yacht Sales LLC**  
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To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

T:  
F: