



VOLVO PENTA

OIL ANALYSIS REPORT

| | |
|-----------------|--------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |

Area

VERHEEM [VERHEEM]

Machine Id

VOLVO PENTA 3940016483

Component

Starboard IPS

Fluid

{not provided} (--- GAL)

RECOMMENDATION

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 | | VPA053617 | --- | --- |
| Sample Date | | Client Info | | 19 Apr 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 143 | --- | --- |
| Oil Age | hrs | Client Info | | 0 | --- | --- |
| Filter Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | N/A | --- | --- |
| Filter Changed | | Client Info | | N/A | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|------|-----|-----|
| PQ | | ASTM D8184 | | 27 | --- | --- |
| Iron | ppm | ASTM D5185m | >200 | 61 | --- | --- |
| Chromium | ppm | ASTM D5185m | >10 | <1 | --- | --- |
| Nickel | ppm | ASTM D5185m | >10 | 0 | --- | --- |
| Titanium | ppm | ASTM D5185m | | <1 | --- | --- |
| Silver | ppm | ASTM D5185m | | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | | <1 | --- | --- |
| Lead | ppm | ASTM D5185m | | 0 | --- | --- |
| Copper | ppm | ASTM D5185m | | 10 | --- | --- |
| Tin | ppm | ASTM D5185m | | 0 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | <1 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |

CONTAMINATION

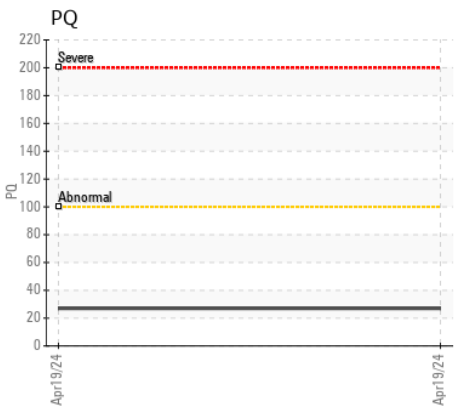
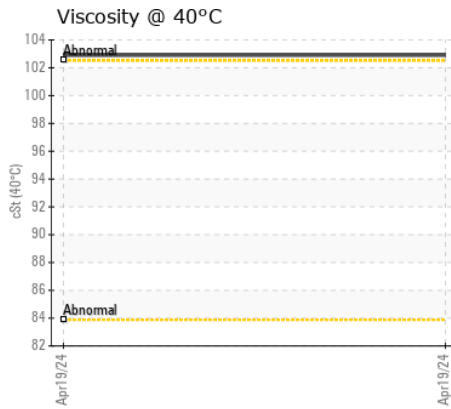
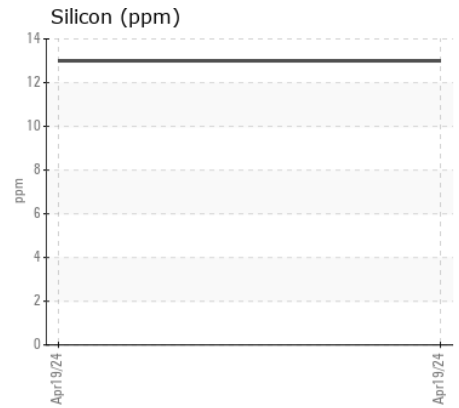
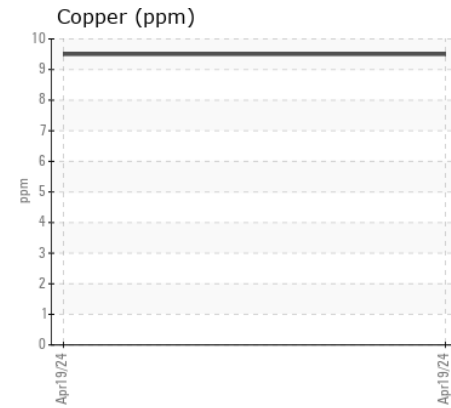
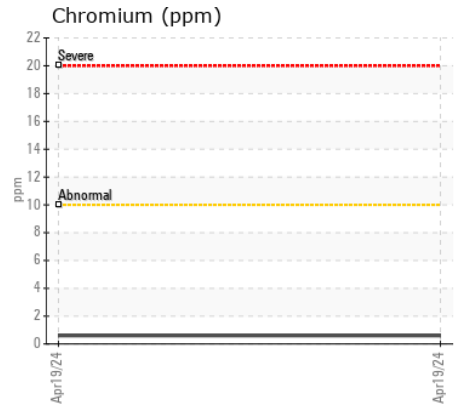
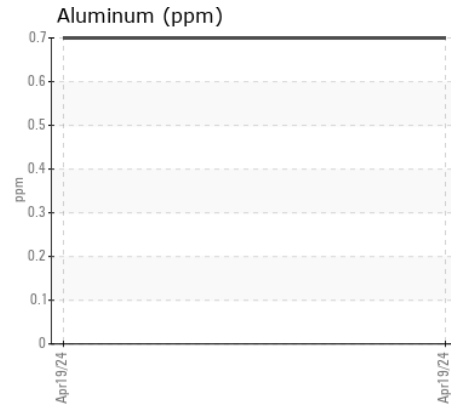
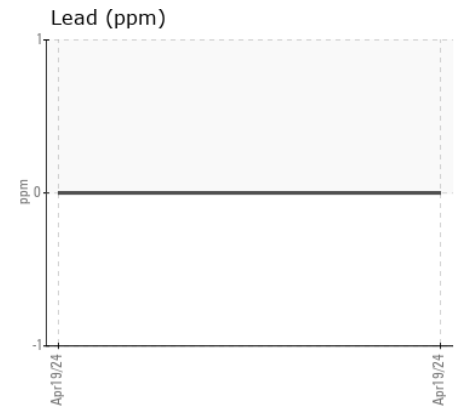
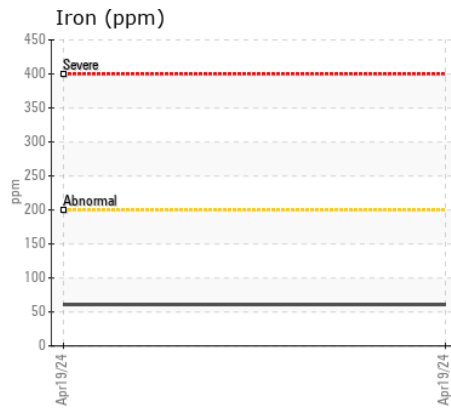
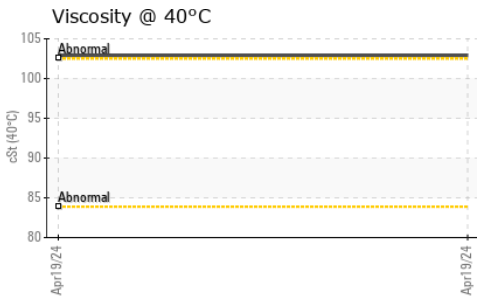
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|--------|-------------|-------|-------|-----|-----|
| Silicon | ppm | ASTM D5185m | | 13 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | <1 | --- | --- |
| Water | | WC Method | >0.2 | NEG | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.2 | NEG | --- | --- |

FLUID CONDITION

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

| | | | | | | |
|-------------|-----|-------------|--|-------|-----|-----|
| Sodium | ppm | ASTM D5185m | | 2 | --- | --- |
| Boron | ppm | ASTM D5185m | | 339 | --- | --- |
| Barium | ppm | ASTM D5185m | | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | | 0 | --- | --- |
| Manganese | ppm | ASTM D5185m | | 2 | --- | --- |
| Magnesium | ppm | ASTM D5185m | | 118 | --- | --- |
| Calcium | ppm | ASTM D5185m | | 12 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | | 1252 | --- | --- |
| Zinc | ppm | ASTM D5185m | | 8 | --- | --- |
| Sulfur | ppm | ASTM D5185m | | 27388 | --- | --- |
| Visc @ 40°C | cSt | ASTM D445 | | 102.9 | --- | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA053617 **Received** : 22 Apr 2024
Lab Number : 06156572 **Tested** : 22 Apr 2024
Unique Number : 10991995 **Diagnosed** : 22 Apr 2024 - Doug Bogart
Test Package : MOB 1 (Additional Tests: PQ)

Harry's Marine Service LLC
 1141 N. Citrus St.
 Orange, CA
 US 92887
 Contact: TARAH AULD
 info@harrysmarine.com
 T: (714)771-7899
 F:

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)