



OIL ANALYSIS REPORT

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

Area
MARK LINTON [SAM]
Machine Id
VOLVO PENTA A1047484
Component
Port Diesel Engine
Fluid
VOLVO PENTA SAE 15W40 (6 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|----------|
| Sample Number | | Client Info | | VPA053123 | VPA043228 | --- |
| Sample Date | | Client Info | | 09 May 2024 | 23 Sep 2022 | --- |
| Machine Age | hrs | Client Info | | 352 | 270 | --- |
| Oil Age | hrs | Client Info | | 0 | 0 | --- |
| Filter Age | hrs | Client Info | | 0 | 0 | --- |
| Oil Changed | | Client Info | | Changed | Not Changd | --- |
| Filter Changed | | Client Info | | Changed | Not Changd | --- |
| Sample Status | | | | NORMAL | NORMAL | --- |

WEAR

Metal levels are typical for a new component breaking in.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|-----|
| Iron | ppm | ASTM D5185m | >80 | 24 | 33 | --- |
| Chromium | ppm | ASTM D5185m | >6 | 2 | 2 | --- |
| Nickel | ppm | ASTM D5185m | >2 | 3 | 4 | --- |
| Titanium | ppm | ASTM D5185m | >2 | <1 | <1 | --- |
| Silver | ppm | ASTM D5185m | >2 | 0 | <1 | --- |
| Aluminum | ppm | ASTM D5185m | >20 | 8 | 14 | --- |
| Lead | ppm | ASTM D5185m | >95 | 3 | 6 | --- |
| Copper | ppm | ASTM D5185m | >85 | 15 | 24 | --- |
| Tin | ppm | ASTM D5185m | >9 | 2 | 4 | --- |
| Vanadium | ppm | ASTM D5185m | | <1 | <1 | --- |
| White Metal | scalar | *Visual | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | --- |

CONTAMINATION

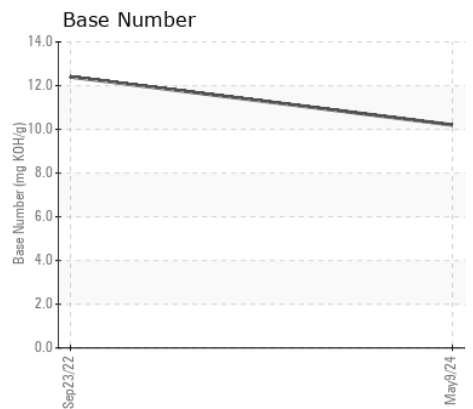
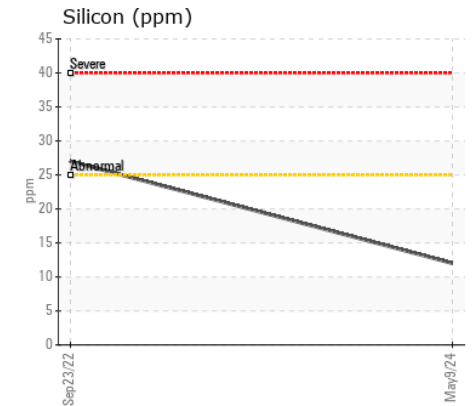
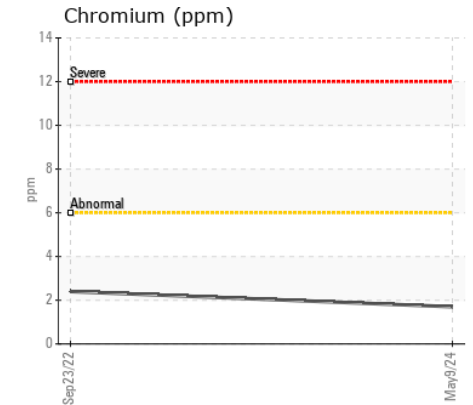
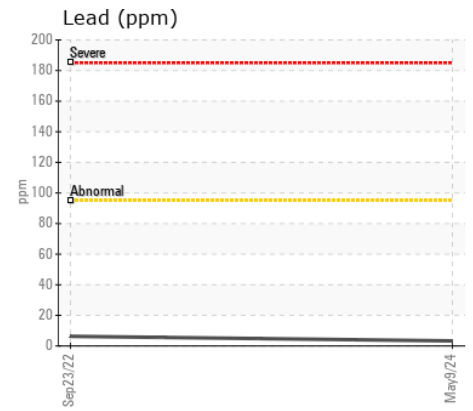
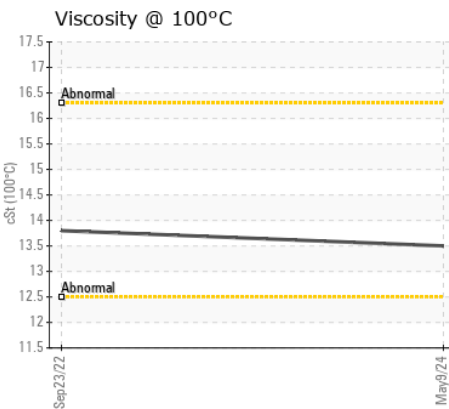
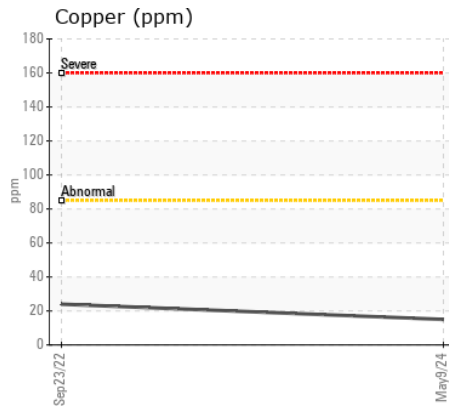
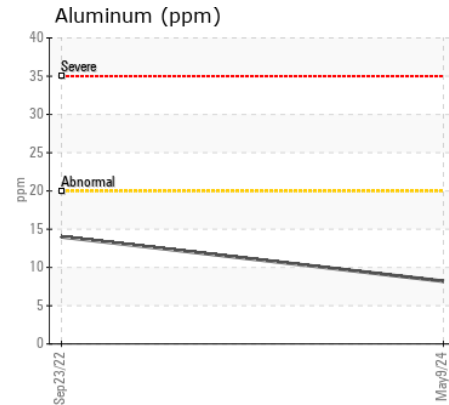
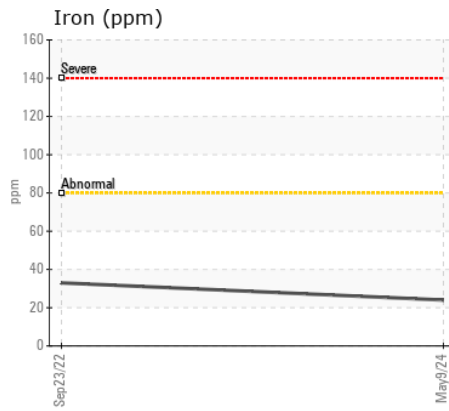
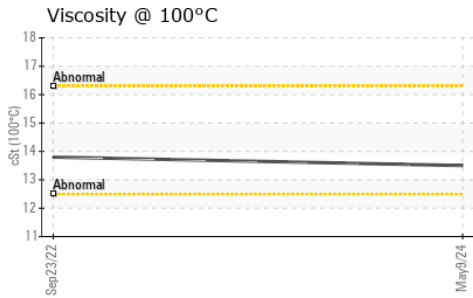
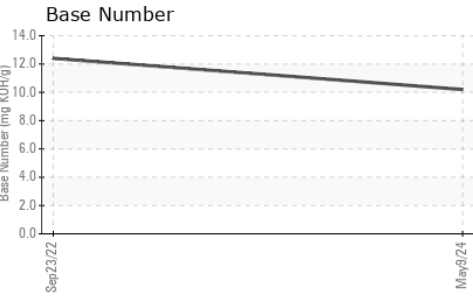
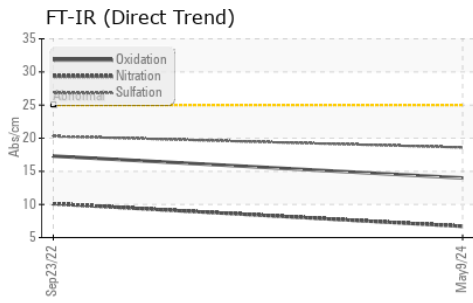
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-----|
| Silicon | ppm | ASTM D5185m | >25 | 12 | 27 | --- |
| Potassium | ppm | ASTM D5185m | >20 | 3 | 3 | --- |
| Fuel | | WC Method | >4.0 | <1.0 | <1.0 | --- |
| Water | | WC Method | >0.1 | NEG | NEG | --- |
| Glycol | | WC Method | | NEG | NEG | --- |
| Soot % | % | *ASTM D7844 | | 0.3 | 0.3 | --- |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 6.7 | 10.1 | --- |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 18.6 | 20.3 | --- |
| Silt | scalar | *Visual | NONE | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | NONE | NONE | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | --- |
| Appearance | scalar | *Visual | NORML | NORML | NORML | --- |
| Odor | scalar | *Visual | NORML | NORML | NORML | --- |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | NEG | --- |

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|-----|--------------|------|-----|
| Sodium | ppm | ASTM D5185m | | 0 | 6 | --- |
| Boron | ppm | ASTM D5185m | | 13 | 53 | --- |
| Barium | ppm | ASTM D5185m | | 2 | <1 | --- |
| Molybdenum | ppm | ASTM D5185m | | 61 | 47 | --- |
| Manganese | ppm | ASTM D5185m | | <1 | 2 | --- |
| Magnesium | ppm | ASTM D5185m | | 820 | 555 | --- |
| Calcium | ppm | ASTM D5185m | | 1363 | 2366 | --- |
| Phosphorus | ppm | ASTM D5185m | | 1027 | 1154 | --- |
| Zinc | ppm | ASTM D5185m | | 1159 | 1379 | --- |
| Sulfur | ppm | ASTM D5185m | | 3517 | 5824 | --- |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 14.0 | 17.3 | --- |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 10.2 | 12.4 | --- |
| Visc @ 100°C | cSt | ASTM D445 | | 13.5 | 13.8 | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA053123 **Received** : 13 May 2024
Lab Number : 06176821 **Tested** : 14 May 2024
Unique Number : 11022874 **Diagnosed** : 14 May 2024 - Sean Felton
Test Package : MOB 1 (Additional Tests: TBN)

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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)