



ASCENDUM

OIL ANALYSIS REPORT

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



Area

Ascendum Machinery

Machine Id

VOLVO L180H 43 (S/N 5598)

Component

Diesel Engine

Fluid

VOLVO VDS-4.5 Premium Motor Oil 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | ASC0001673 | ASC0001655 | ASC0001968 |
| Sample Date | | Client Info | | 16 Apr 2024 | 25 Jan 2024 | 15 Dec 2023 |
| Machine Age | hrs | Client Info | | 7050 | 6459 | 6040 |
| Oil Age | hrs | Client Info | | 591 | 419 | 533 |
| Filter Age | hrs | Client Info | | 0 | 0 | 533 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >100 | 0 | 3 | 2 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | <1 | 1 | <1 |
| Lead | ppm | ASTM D5185m | >20 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m | >15 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185m | >10 | 0 | <1 | <1 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

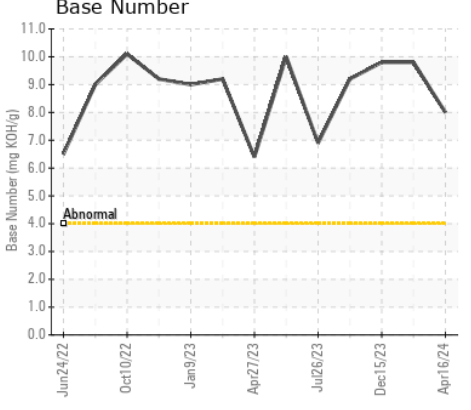
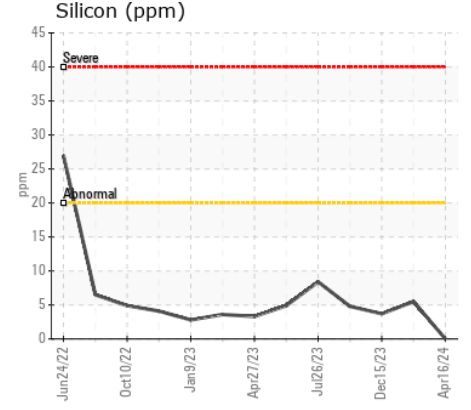
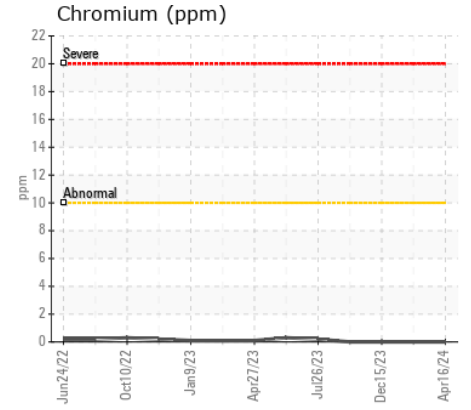
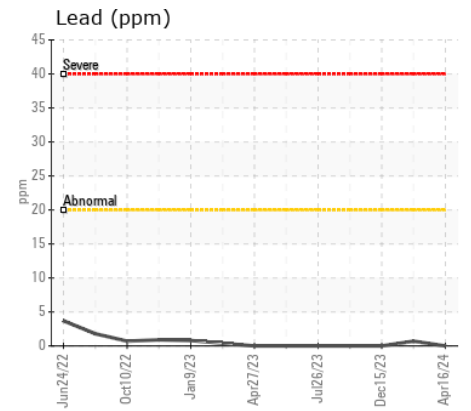
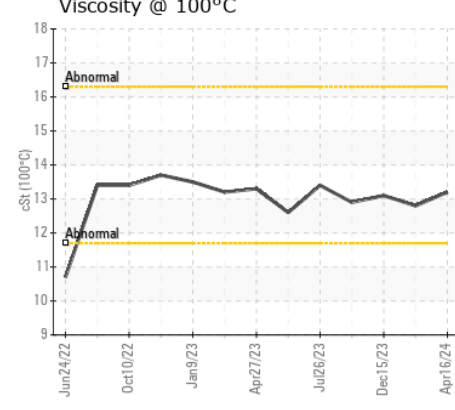
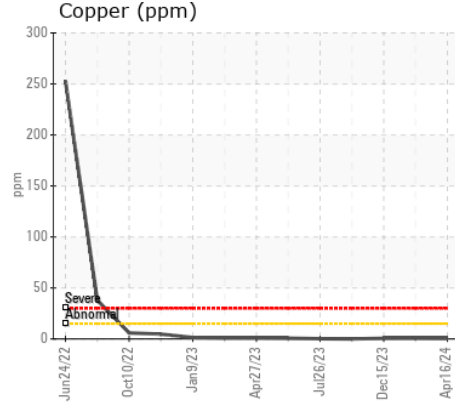
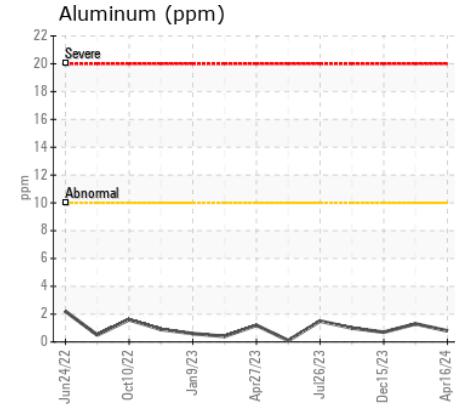
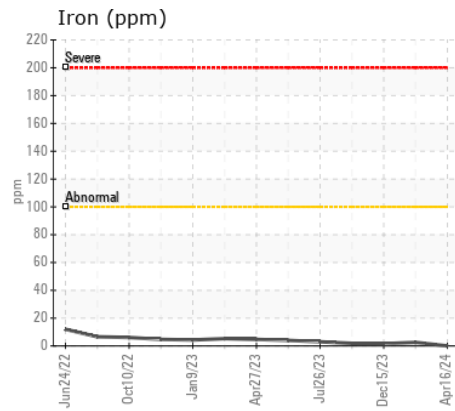
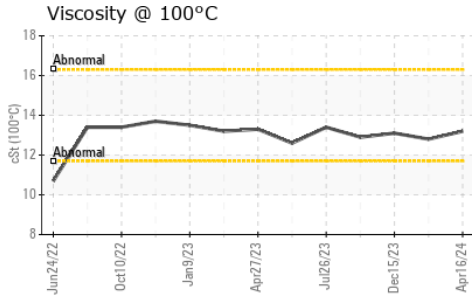
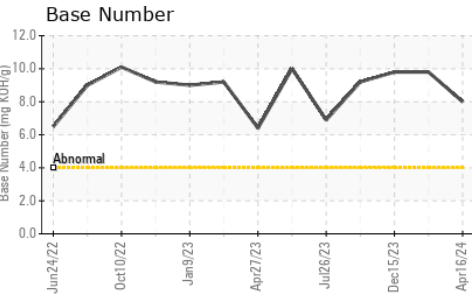
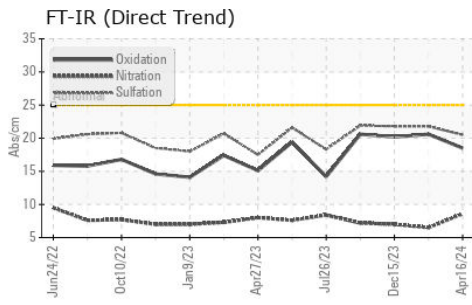
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|----------|-------------|-------|----------------|-------|-------|
| Silicon | ppm | ASTM D5185m | >20 | 0 | 6 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | 1 | 2 | <1 |
| Fuel | | WC Method | >6.0 | <1.0 | <1.0 | <1.0 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Glycol | | WC Method | | NEG | NEG | NEG |
| Soot % | % | *ASTM D7844 | >3 | 0.2 | 0.1 | 0.1 |
| Nitration | Abs/cm | *ASTM D7624 | >20 | 8.6 | 6.5 | 7.0 |
| Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 20.5 | 21.8 | 21.8 |
| Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | 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 | | 2 | 2 | 1 |
| Boron | ppm | ASTM D5185m | | 53 | 59 | 45 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 45 | 39 | 37 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | | 302 | 503 | 503 |
| Calcium | ppm | ASTM D5185m | | 1822 | 1659 | 1661 |
| Phosphorus | ppm | ASTM D5185m | | 925 | 956 | 891 |
| Zinc | ppm | ASTM D5185m | | 1040 | 1110 | 1127 |
| Sulfur | ppm | ASTM D5185m | | 3385 | 2873 | 2947 |
| Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 18.5 | 20.6 | 20.2 |
| Base Number (BN) | mg KOH/g | ASTM D2896 | | 8.0 | 9.8 | 9.8 |
| Visc @ 100°C | cSt | ASTM D445 | | 13.2 | 12.8 | 13.1 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ASC0001673
Lab Number : 06157407
Unique Number : 10992830
Test Package : MOBCE (Additional Tests: TBN)

Received : 23 Apr 2024
Tested : 24 Apr 2024
Diagnosed : 24 Apr 2024 - Wes Davis

EGGER WOOD PRODUCTS
 300 EGGER PARKWAY
 LINWOOD, NC
 US 27299
 Contact: HELMUT THOMAY
 helmut.thomay@egger.com

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)

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