



VOLVO

OIL ANALYSIS REPORT

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



Area

[GENERAL RV]

Machine Id

VOLVO L20H 1220371

Component

Hydraulic System

Fluid

VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | VCP445571 | VCP420229 | VCP385379 |
| Sample Date | | Client Info | | 29 Apr 2024 | 20 Apr 2023 | 20 Sep 2022 |
| Machine Age | hrs | Client Info | | 2478 | 1557 | 1077 |
| Oil Age | hrs | Client Info | | 0 | 0 | 500 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | Not Changd |
| Filter Changed | | Client Info | | N/A | Changed | Changed |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >50 | 4 | 3 | 1 |
| Chromium | ppm | ASTM D5185m | >20 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | <1 | <1 | 2 |
| Lead | ppm | ASTM D5185m | >20 | 1 | 0 | 1 |
| Copper | ppm | ASTM D5185m | >150 | 2 | 3 | 3 |
| Tin | ppm | ASTM D5185m | >20 | <1 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | <1 | 1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

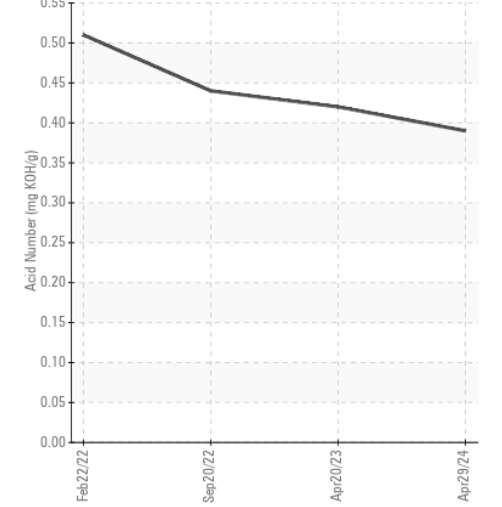
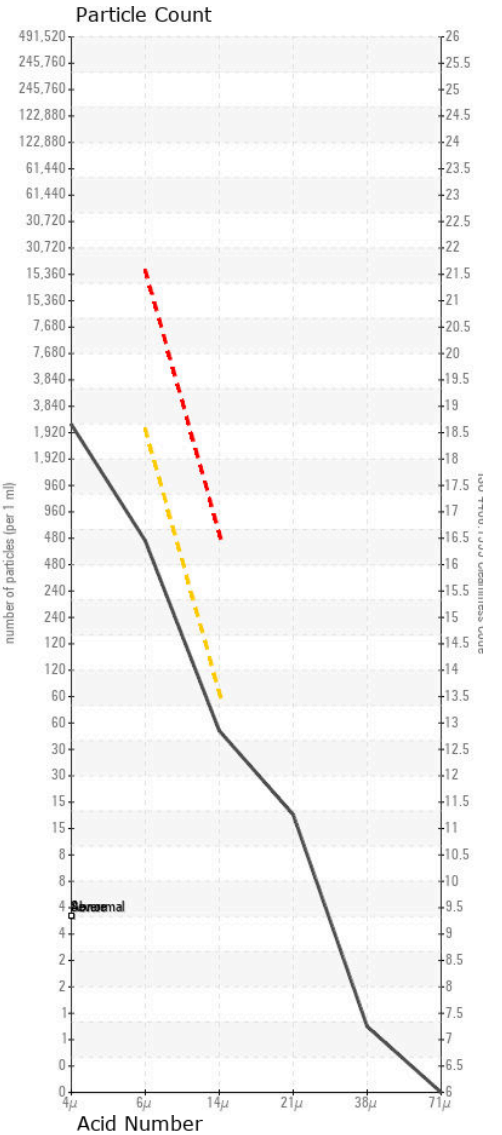
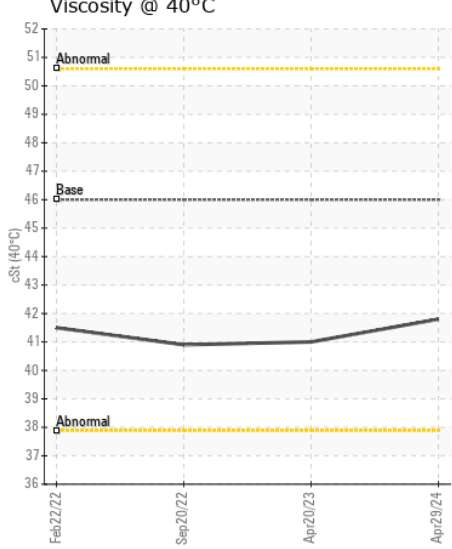
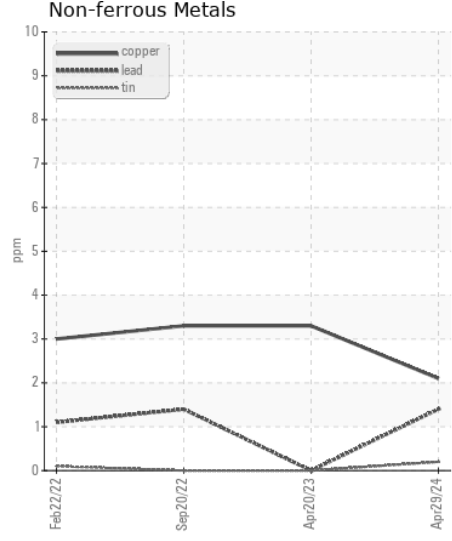
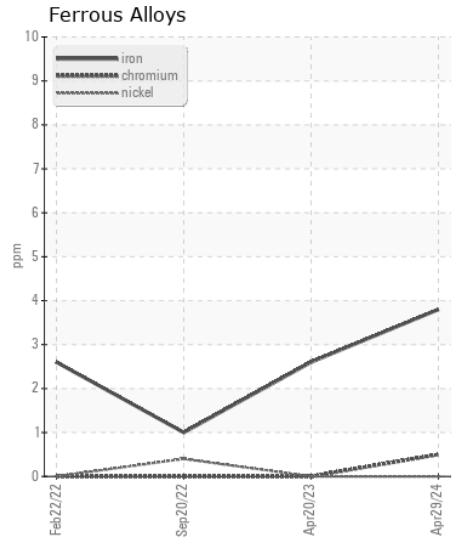
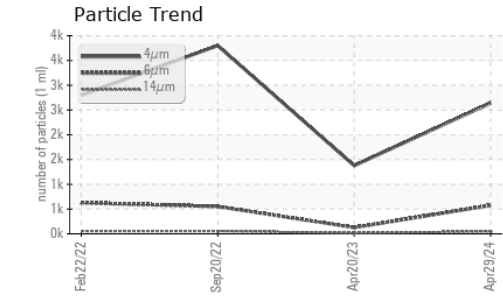
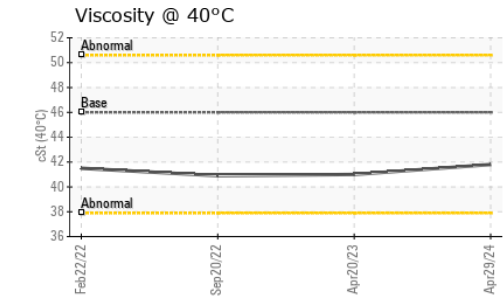
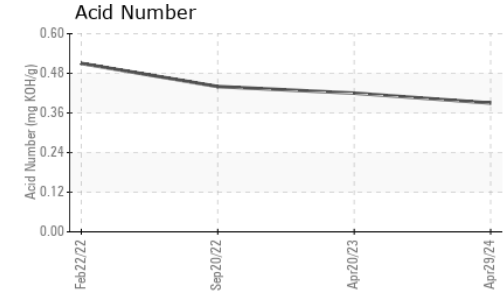
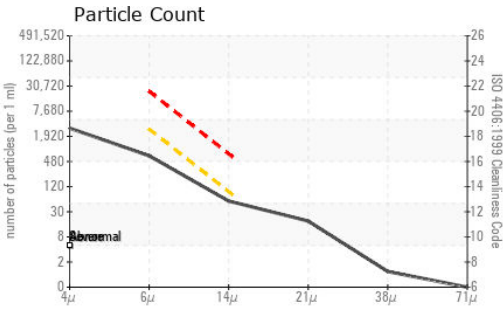
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

| | | | | | | |
|------------------|--------|--------------|----------|-----------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >20 | 2 | 1 | 3 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 0 | <1 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Particles >4µm | | ASTM D7647 | | 2641 | 1377 | 3801 |
| Particles >6µm | | ASTM D7647 | >2500 | 576 | 127 | 551 |
| Particles >14µm | | ASTM D7647 | >80 | 48 | 12 | 55 |
| Particles >21µm | | ASTM D7647 | >20 | 16 | 4 | 19 |
| Particles >38µm | | ASTM D7647 | >4 | 1 | 1 | 1 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >-/18/13 | 19/16/13 | 18/14/11 | 19/16/13 |
| 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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| | | | | | | |
|------------------|----------|-------------|------|-------------|------|------|
| Sodium | ppm | ASTM D5185m | | 0 | 0 | 1 |
| Boron | ppm | ASTM D5185m | 14 | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 0.0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0.0 | 2 | 0 | <1 |
| Manganese | ppm | ASTM D5185m | 0.0 | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 2.6 | 14 | 0 | 0 |
| Calcium | ppm | ASTM D5185m | 49 | 93 | 7 | 36 |
| Phosphorus | ppm | ASTM D5185m | 354 | 356 | 298 | 307 |
| Zinc | ppm | ASTM D5185m | 419 | 474 | 356 | 405 |
| Sulfur | ppm | ASTM D5185m | 3719 | 1942 | 579 | 852 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.39 | 0.42 | 0.44 |
| Visc @ 40°C | cSt | ASTM D445 | 46 | 41.8 | 41.0 | 40.9 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP445571 **Received** : 30 May 2024
Lab Number : 06195350 **Tested** : 31 May 2024
Unique Number : 11057473 **Diagnosed** : 31 May 2024 - Wes Davis
Test Package : MOB 2

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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)