



# VOLVO

## OIL ANALYSIS REPORT

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

Area  
**[SWA491951 RENTAL]**  
 Machine Id  
**VOLVO DD120C 288138**  
 Component  
**Hydraulic System**  
 Fluid  
**VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)**

### RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. The filter change at the time of sampling has been noted. Resample in 30-45 days to monitor this situation.

### WEAR

All component wear rates are normal.

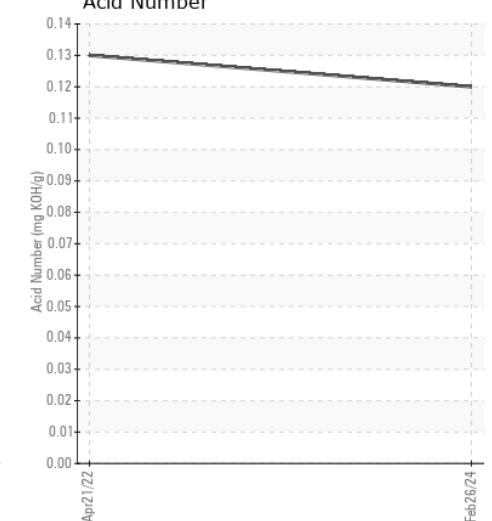
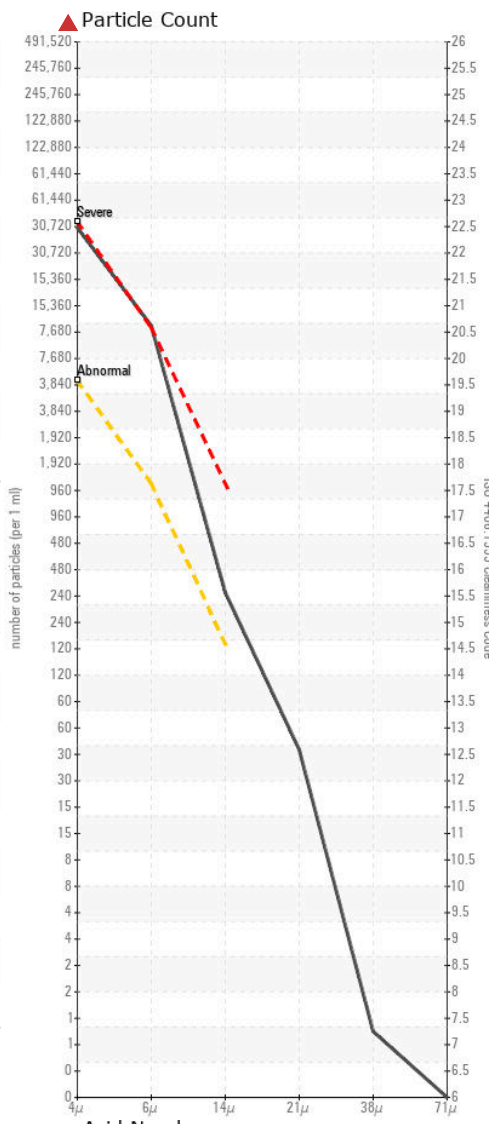
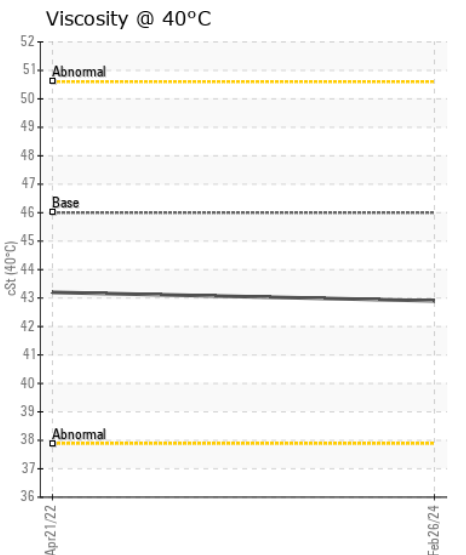
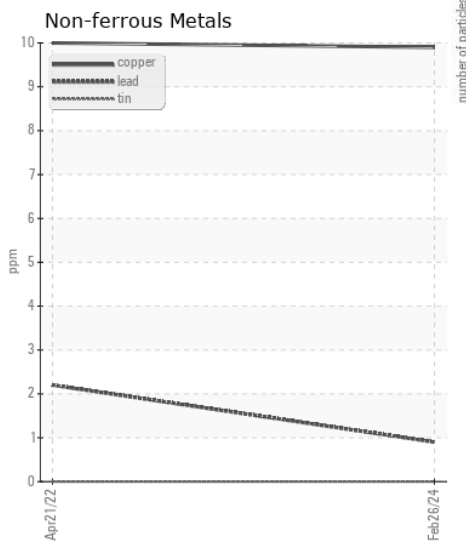
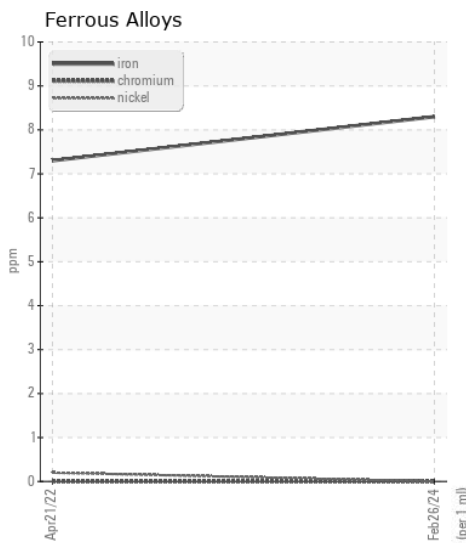
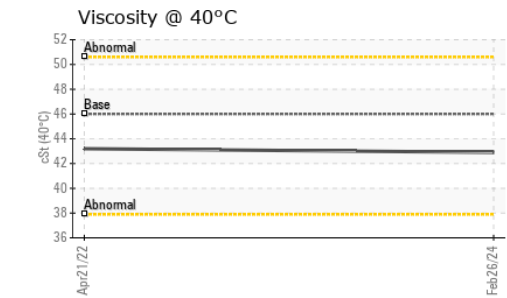
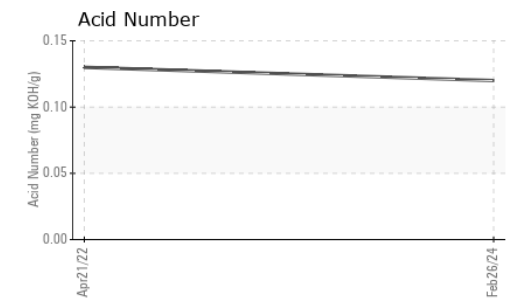
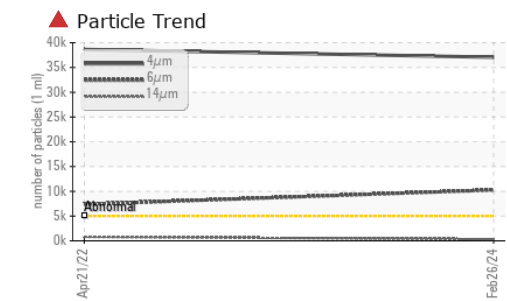
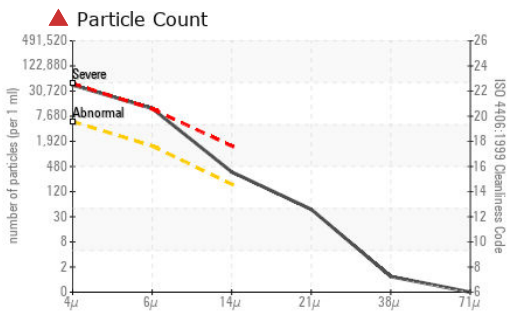
### CONTAMINATION

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

### FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

| Test             | UOM      | Method       | Limit/Abn | Current     | History1    | History2 |
|------------------|----------|--------------|-----------|-------------|-------------|----------|
| Sample Number    |          | Client Info  |           | VCP434388   | VCP354142   | ---      |
| Sample Date      |          | Client Info  |           | 26 Feb 2024 | 21 Apr 2022 | ---      |
| Machine Age      | hrs      | Client Info  |           | 4350        | 2610        | ---      |
| Oil Age          | hrs      | Client Info  |           | 2000        | 0           | ---      |
| Filter Age       | hrs      | Client Info  |           | 0           | 0           | ---      |
| Oil Changed      |          | Client Info  |           | Changed     | N/A         | ---      |
| Filter Changed   |          | Client Info  |           | Changed     | N/A         | ---      |
| Sample Status    |          |              |           | SEVERE      | ABNORMAL    | ---      |
| Iron             | ppm      | ASTM D5185m  | >20       | 8           | 7           | ---      |
| Chromium         | ppm      | ASTM D5185m  | >10       | 0           | 0           | ---      |
| Nickel           | ppm      | ASTM D5185m  | >10       | 0           | <1          | ---      |
| Titanium         | ppm      | ASTM D5185m  |           | 0           | 0           | ---      |
| Silver           | ppm      | ASTM D5185m  |           | 0           | <1          | ---      |
| Aluminum         | ppm      | ASTM D5185m  | >10       | 0           | <1          | ---      |
| Lead             | ppm      | ASTM D5185m  | >10       | <1          | 2           | ---      |
| Copper           | ppm      | ASTM D5185m  | >75       | 10          | 10          | ---      |
| Tin              | ppm      | ASTM D5185m  | >10       | 0           | 0           | ---      |
| Vanadium         | ppm      | ASTM D5185m  |           | 0           | 0           | ---      |
| White Metal      | scalar   | *Visual      | NONE      | NONE        | NONE        | ---      |
| Yellow Metal     | scalar   | *Visual      | NONE      | NONE        | NONE        | ---      |
| Silicon          | ppm      | ASTM D5185m  | >20       | <1          | <1          | ---      |
| Potassium        | ppm      | ASTM D5185m  | >20       | 0           | 0           | ---      |
| Water            |          | WC Method    | >0.1      | NEG         | NEG         | ---      |
| Particles >4µm   |          | ASTM D7647   | >5000     | ▲ 37057     | ▲ 38640     | ---      |
| Particles >6µm   |          | ASTM D7647   | >1300     | ▲ 10264     | ▲ 7374      | ---      |
| Particles >14µm  |          | ASTM D7647   | >160      | ● 313       | ▲ 795       | ---      |
| Particles >21µm  |          | ASTM D7647   | >40       | 40          | ▲ 191       | ---      |
| Particles >38µm  |          | ASTM D7647   | >10       | 1           | ▲ 14        | ---      |
| Particles >71µm  |          | ASTM D7647   | >3        | 0           | 0           | ---      |
| Oil Cleanliness  |          | ISO 4406 (c) | >19/17/14 | ▲ 22/21/15  | ▲ 22/20/17  | ---      |
| 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         | ---      |
| Sodium           | ppm      | ASTM D5185m  |           | 1           | 0           | ---      |
| Boron            | ppm      | ASTM D5185m  | 14        | <1          | 0           | ---      |
| Barium           | ppm      | ASTM D5185m  | 0.0       | 0           | 0           | ---      |
| Molybdenum       | ppm      | ASTM D5185m  | 0.0       | <1          | <1          | ---      |
| Manganese        | ppm      | ASTM D5185m  | 0.0       | 0           | <1          | ---      |
| Magnesium        | ppm      | ASTM D5185m  | 2.6       | 2           | 1           | ---      |
| Calcium          | ppm      | ASTM D5185m  | 49        | 104         | 104         | ---      |
| Phosphorus       | ppm      | ASTM D5185m  | 354       | 376         | 448         | ---      |
| Zinc             | ppm      | ASTM D5185m  | 419       | 164         | 172         | ---      |
| Sulfur           | ppm      | ASTM D5185m  | 3719      | 1695        | 1710        | ---      |
| Acid Number (AN) | mg KOH/g | ASTM D8045   |           | 0.12        | 0.13        | ---      |
| Visc @ 40°C      | cSt      | ASTM D445    | 46        | 42.9        | 43.2        | ---      |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : VCP434388

Lab Number : 06106001

Unique Number : 10909498

Test Package : MOB 2

Received : 01 Mar 2024

Tested : 04 Mar 2024

Diagnosed : 04 Mar 2024 - Wes Davis

ALTA EQUIPMENT

5985 COURT STREET ROAD

SYRACUSE, NY

US 13206

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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)