



# VOLVO

## OIL ANALYSIS REPORT

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



Area  
**[41829]**  
Machine Id  
**VOLVO A40G 352361**  
Component  
**Hydraulic System**  
Fluid  
**{not provided} (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

| Test           | UOM | Method      | Limit/Abn | Current     | History1    | History2 |
|----------------|-----|-------------|-----------|-------------|-------------|----------|
| Sample Number  |     | Client Info |           | VCP449767   | VCP295560   | ---      |
| Sample Date    |     | Client Info |           | 12 Apr 2024 | 01 Dec 2020 | ---      |
| Machine Age    | hrs | Client Info |           | 3829        | 899         | ---      |
| 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

All component wear rates are normal.

|              |        |             |      |      |      |     |
|--------------|--------|-------------|------|------|------|-----|
| Iron         | ppm    | ASTM D5185m | >50  | 6    | 2    | --- |
| Chromium     | ppm    | ASTM D5185m | >20  | 0    | <1   | --- |
| Nickel       | ppm    | ASTM D5185m | >10  | 0    | 0    | --- |
| Titanium     | ppm    | ASTM D5185m |      | 0    | 0    | --- |
| Silver       | ppm    | ASTM D5185m |      | 0    | <1   | --- |
| Aluminum     | ppm    | ASTM D5185m | >20  | 0    | 0    | --- |
| Lead         | ppm    | ASTM D5185m | >20  | 2    | 2    | --- |
| Copper       | ppm    | ASTM D5185m | >150 | 3    | 2    | --- |
| Tin          | ppm    | ASTM D5185m | >20  | <1   | <1   | --- |
| Vanadium     | ppm    | ASTM D5185m |      | 0    | 0    | --- |
| White Metal  | scalar | *Visual     | NONE | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual     | NONE | NONE | NONE | --- |

### CONTAMINATION

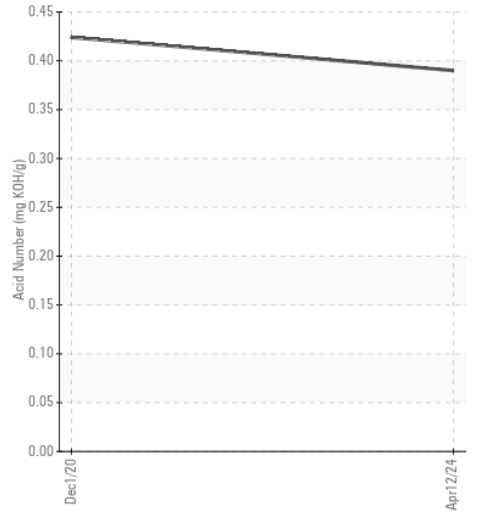
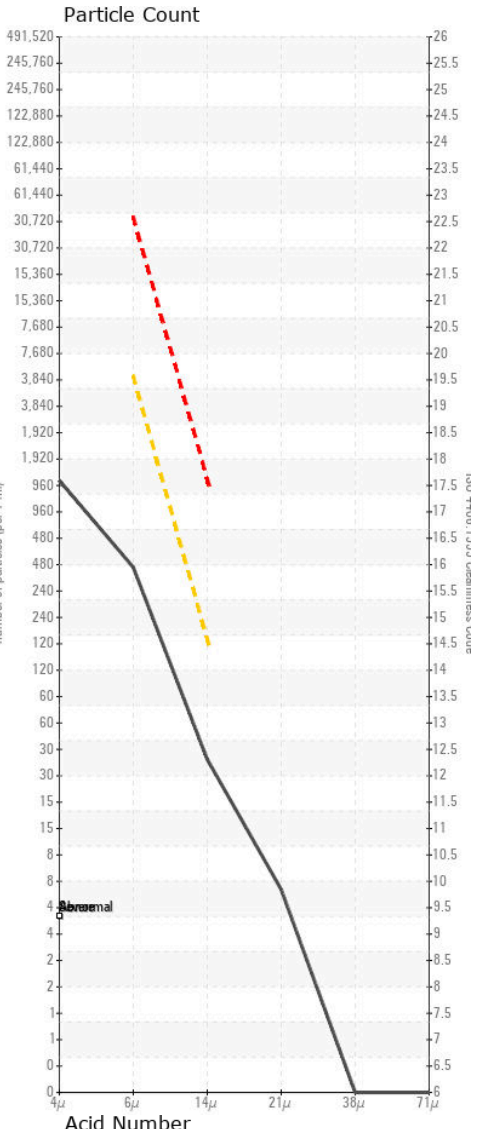
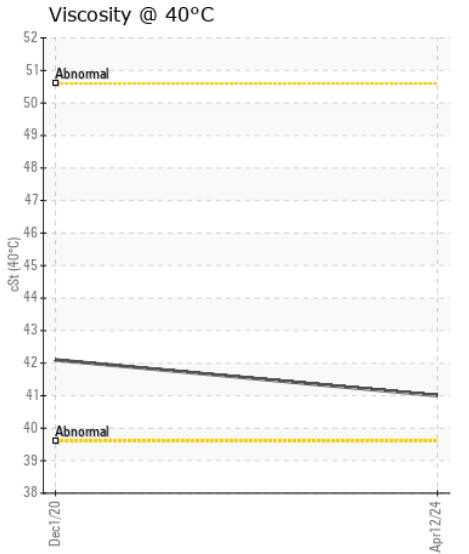
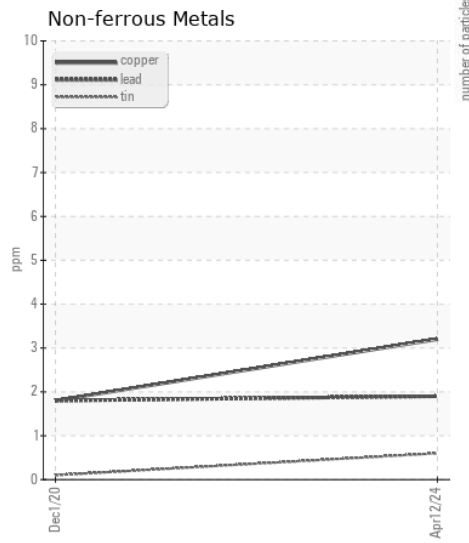
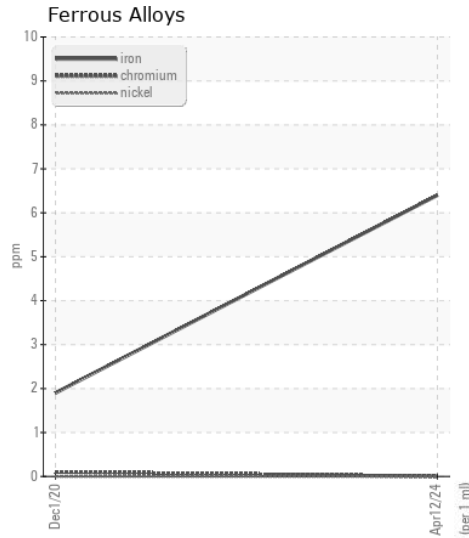
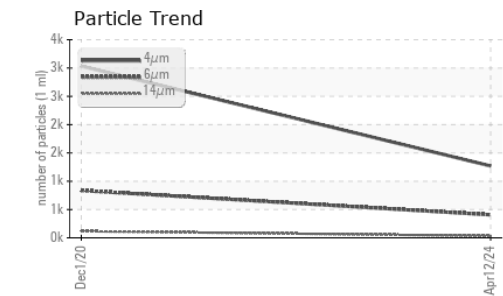
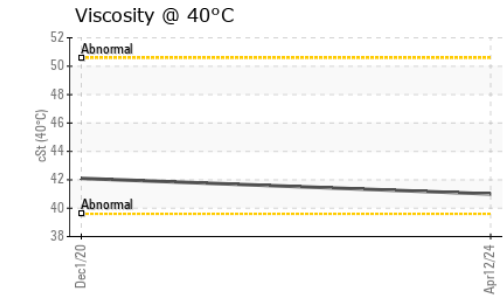
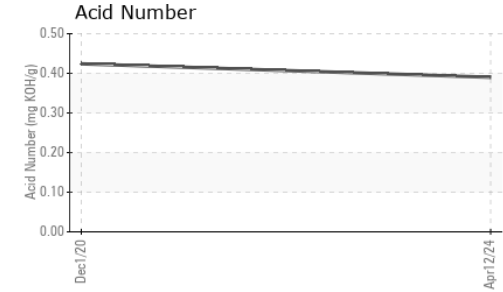
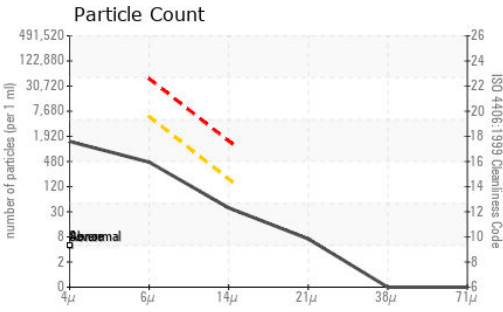
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

|                  |        |              |          |          |          |     |
|------------------|--------|--------------|----------|----------|----------|-----|
| Silicon          | ppm    | ASTM D5185m  | >20      | 5        | 6        | --- |
| Potassium        | ppm    | ASTM D5185m  | >20      | 0        | <1       | --- |
| Water            |        | WC Method    | >0.1     | NEG      | NEG      | --- |
| Particles >4µm   |        | ASTM D7647   |          | 1269     | 3034     | --- |
| Particles >6µm   |        | ASTM D7647   | >5000    | 407      | 836      | --- |
| Particles >14µm  |        | ASTM D7647   | >160     | 33       | 117      | --- |
| Particles >21µm  |        | ASTM D7647   | >40      | 6        | 37       | --- |
| Particles >38µm  |        | ASTM D7647   | >10      | 0        | 1        | --- |
| Particles >71µm  |        | ASTM D7647   | >3       | 0        | 0        | --- |
| Oil Cleanliness  |        | ISO 4406 (c) | >-/19/14 | 17/16/12 | 19/17/14 | --- |
| 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 AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

|                  |          |             |  |      |       |     |
|------------------|----------|-------------|--|------|-------|-----|
| Sodium           | ppm      | ASTM D5185m |  | 3    | 0     | --- |
| Boron            | ppm      | ASTM D5185m |  | 0    | <1    | --- |
| Barium           | ppm      | ASTM D5185m |  | 0    | 0     | --- |
| Molybdenum       | ppm      | ASTM D5185m |  | 0    | <1    | --- |
| Manganese        | ppm      | ASTM D5185m |  | 0    | <1    | --- |
| Magnesium        | ppm      | ASTM D5185m |  | <1   | <1    | --- |
| Calcium          | ppm      | ASTM D5185m |  | 44   | 49    | --- |
| Phosphorus       | ppm      | ASTM D5185m |  | 286  | 341   | --- |
| Zinc             | ppm      | ASTM D5185m |  | 329  | 409   | --- |
| Sulfur           | ppm      | ASTM D5185m |  | 1055 | 767   | --- |
| Acid Number (AN) | mg KOH/g | ASTM D8045  |  | 0.39 | 0.424 | --- |
| Visc @ 40°C      | cSt      | ASTM D445   |  | 41.0 | 42.1  | --- |



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : VCP449767  
**Lab Number** : 06150246  
**Unique Number** : 10980324  
**Test Package** : MOB 2  
**Received** : 16 Apr 2024  
**Tested** : 18 Apr 2024  
**Diagnosed** : 18 Apr 2024 - Don Baldrige

**BALFOUR BEATTY INFRASTRUCTURE INC**  
 6701 OLD PLANK RD  
 PARKTON, NC  
 US 28371  
 Contact: Service Manager

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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F: