



# VOLVO

## OIL ANALYSIS REPORT

|                 |               |
|-----------------|---------------|
| WEAR            | <b>NORMAL</b> |
| CONTAMINATION   | <b>NORMAL</b> |
| FLUID CONDITION | <b>NORMAL</b> |



Area  
**[400402]**

Machine Id  
**16-8112**

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 |           | <b>VCP393859</b>   | VCP380505   | VCP380233   |
| Sample Date    |     | Client Info |           | <b>10 Apr 2024</b> | 25 Oct 2023 | 18 Jun 2023 |
| Machine Age    | hrs | Client Info |           | <b>10000</b>       | 9000        | 8010        |
| Oil Age        | hrs | Client Info |           | <b>2000</b>        | 1000        | 4000        |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Not Changd</b>  | Not Changd  | Changed     |
| Filter Changed |     | Client Info |           | <b>Changed</b>     | Not Changd  | Changed     |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

### WEAR

All component wear rates are normal.

|              |        |               |      |              |      |      |
|--------------|--------|---------------|------|--------------|------|------|
| Iron         | ppm    | ASTM D5185(m) | >50  | <b>5</b>     | 4    | 8    |
| Chromium     | ppm    | ASTM D5185(m) | >20  | <b>1</b>     | 1    | 3    |
| Nickel       | ppm    | ASTM D5185(m) | >10  | <b>0</b>     | <1   | <1   |
| Titanium     | ppm    | ASTM D5185(m) |      | <b>0</b>     | 0    | 0    |
| Silver       | ppm    | ASTM D5185(m) |      | <b>&lt;1</b> | <1   | 0    |
| Aluminum     | ppm    | ASTM D5185(m) | >20  | <b>&lt;1</b> | <1   | 1    |
| Lead         | ppm    | ASTM D5185(m) | >20  | <b>0</b>     | <1   | <1   |
| Copper       | ppm    | ASTM D5185(m) | >150 | <b>2</b>     | 2    | 3    |
| Tin          | ppm    | ASTM D5185(m) | >20  | <b>0</b>     | 0    | 0    |
| Vanadium     | ppm    | ASTM D5185(m) |      | <b>0</b>     | 0    | 0    |
| White Metal  | scalar | Visual*       | NONE | <b>NONE</b>  | NONE | NONE |
| Yellow Metal | scalar | Visual*       | NONE | <b>NONE</b>  | NONE | NONE |

### CONTAMINATION

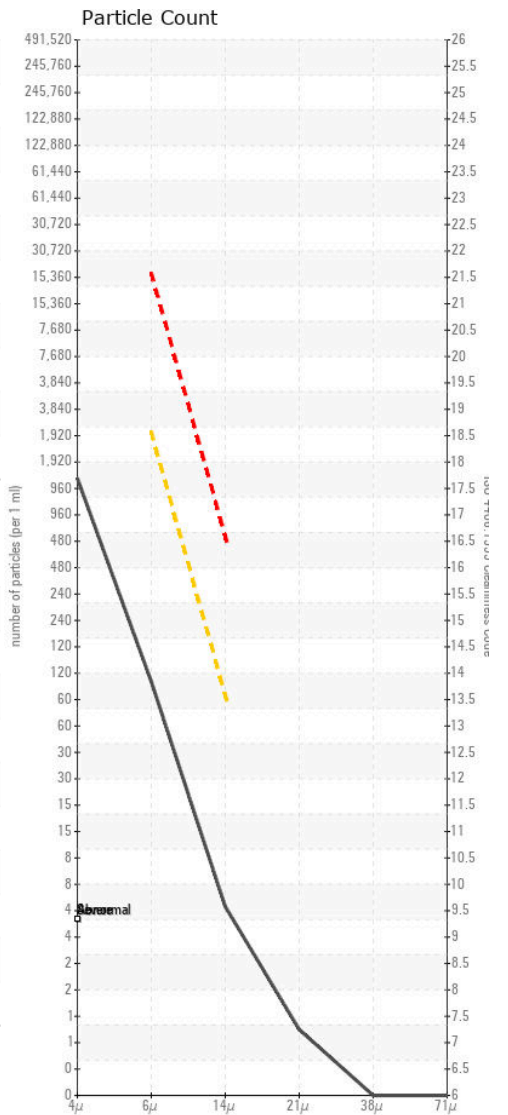
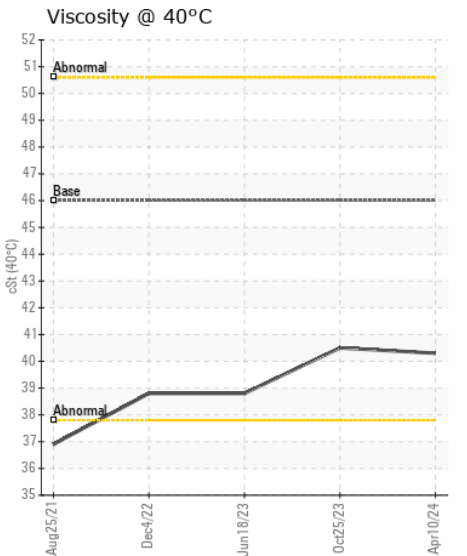
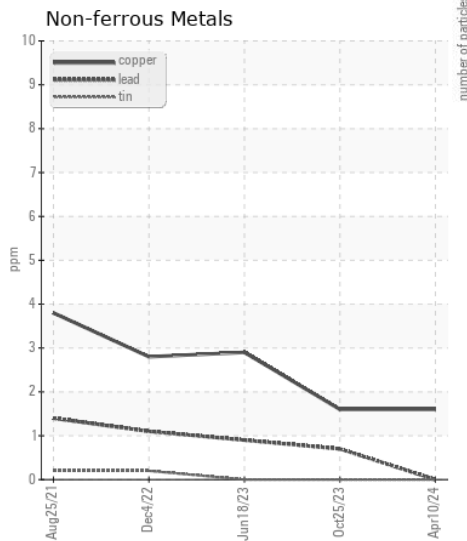
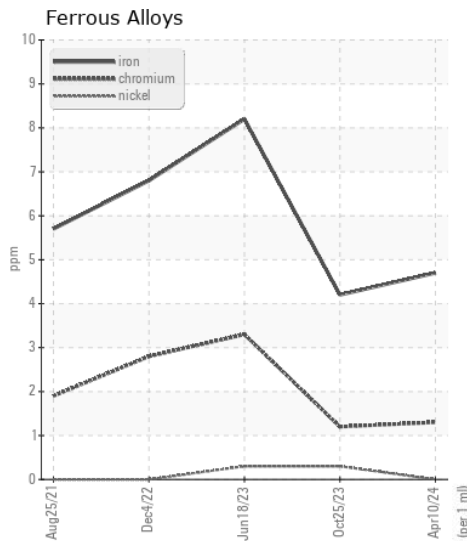
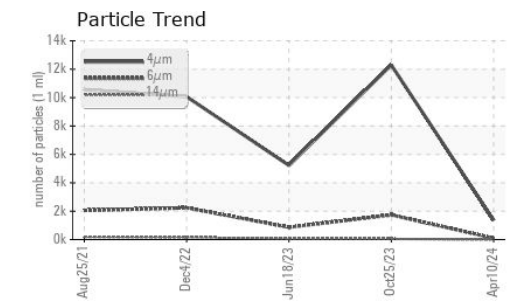
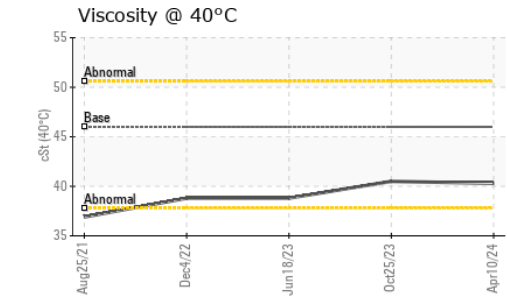
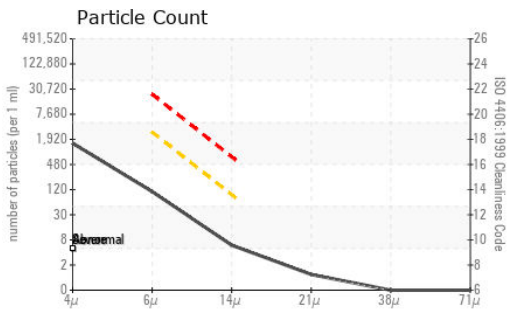
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

|                  |        |               |          |                 |          |          |
|------------------|--------|---------------|----------|-----------------|----------|----------|
| Silicon          | ppm    | ASTM D5185(m) | >20      | <b>&lt;1</b>    | 1        | 2        |
| Potassium        | ppm    | ASTM D5185(m) | >20      | <b>&lt;1</b>    | 0        | <1       |
| Water            |        | WC Method     | >0.1     | <b>NEG</b>      | NEG      | NEG      |
| Particles >4µm   |        | ASTM D7647    |          | <b>1361</b>     | 12297    | 5220     |
| Particles >6µm   |        | ASTM D7647    | >2500    | <b>95</b>       | 1733     | 861      |
| Particles >14µm  |        | ASTM D7647    | >80      | <b>5</b>        | 43       | 60       |
| Particles >21µm  |        | ASTM D7647    | >20      | <b>1</b>        | 8        | 14       |
| Particles >38µm  |        | ASTM D7647    | >4       | <b>0</b>        | 1        | 1        |
| Particles >71µm  |        | ASTM D7647    | >3       | <b>0</b>        | 0        | 0        |
| Oil Cleanliness  |        | ISO 4406 (c)  | >-/18/13 | <b>18/14/10</b> | 21/18/13 | 20/17/13 |
| Silt             | scalar | Visual*       | NONE     | <b>NONE</b>     | NONE     | NONE     |
| Debris           | scalar | Visual*       | NONE     | <b>NONE</b>     | NONE     | NONE     |
| Sand/Dirt        | scalar | Visual*       | NONE     | <b>NONE</b>     | NONE     | NONE     |
| Appearance       | scalar | Visual*       | NORML    | <b>NORML</b>    | NORML    | NORML    |
| Odor             | scalar | Visual*       | NORML    | <b>NORML</b>    | NORML    | NORML    |
| Emulsified Water | scalar | Visual*       | >0.1     | <b>NEG</b>      | NEG      | NEG      |

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

|             |     |               |      |              |      |      |
|-------------|-----|---------------|------|--------------|------|------|
| Sodium      | ppm | ASTM D5185(m) |      | <b>2</b>     | 2    | 3    |
| Boron       | ppm | ASTM D5185(m) | 14   | <b>&lt;1</b> | 0    | <1   |
| Barium      | ppm | ASTM D5185(m) | 0.0  | <b>0</b>     | <1   | 0    |
| Molybdenum  | ppm | ASTM D5185(m) | 0.0  | <b>0</b>     | 0    | 0    |
| Manganese   | ppm | ASTM D5185(m) | 0.0  | <b>0</b>     | 0    | 0    |
| Magnesium   | ppm | ASTM D5185(m) | 2.6  | <b>1</b>     | 2    | 2    |
| Calcium     | ppm | ASTM D5185(m) | 49   | <b>57</b>    | 56   | 57   |
| Phosphorus  | ppm | ASTM D5185(m) | 354  | <b>329</b>   | 336  | 370  |
| Zinc        | ppm | ASTM D5185(m) | 419  | <b>425</b>   | 428  | 428  |
| Sulfur      | ppm | ASTM D5185(m) | 3719 | <b>1844</b>  | 1913 | 1899 |
| Visc @ 40°C | cSt | ASTM D7279(m) | 46   | <b>40.3</b>  | 40.5 | 38.8 |



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : VCP393859 **Received** : 17 Apr 2024  
**Lab Number** : 02629667 **Tested** : 18 Apr 2024  
**Unique Number** : 5762799 **Diagnosed** : 18 Apr 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: PrtCount )

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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.