



# VOLVO

## OIL ANALYSIS REPORT

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



Area  
**[SWO-070331]**  
Machine Id  
**VOLVO A40F 11843**  
Component  
**Front Axle**  
Fluid  
**GEAR OIL SAE 80W90 (--- GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

| Test           | UOM | Method      | Limit/Abn | Current            | History1    | History2    |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number  |     | Client Info |           | <b>VCP452432</b>   | VCP431895   | VCP414172   |
| Sample Date    |     | Client Info |           | <b>12 Mar 2024</b> | 01 Nov 2023 | 02 Aug 2023 |
| Machine Age    | hrs | Client Info |           | <b>7075</b>        | 6592        | 6103        |
| Oil Age        | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Filter Age     | hrs | Client Info |           | <b>0</b>           | 0           | 0           |
| Oil Changed    |     | Client Info |           | <b>Not Changed</b> | Not Changed | Changed     |
| Filter Changed |     | Client Info |           | <b>Not Changed</b> | N/A         | Not Changed |
| Sample Status  |     |             |           | <b>NORMAL</b>      | NORMAL      | NORMAL      |

### WEAR

All component wear rates are normal.

|              |        |             |      |             |      |      |
|--------------|--------|-------------|------|-------------|------|------|
| Iron         | ppm    | ASTM D5185m | >340 | <b>10</b>   | 4    | 23   |
| Chromium     | ppm    | ASTM D5185m | >5   | <b>0</b>    | 0    | 0    |
| Nickel       | ppm    | ASTM D5185m | >2   | <b>0</b>    | 0    | <1   |
| Titanium     | ppm    | ASTM D5185m |      | <b>0</b>    | 0    | 0    |
| Silver       | ppm    | ASTM D5185m |      | <b>0</b>    | 0    | <1   |
| Aluminum     | ppm    | ASTM D5185m | >22  | <b>0</b>    | <1   | 0    |
| Lead         | ppm    | ASTM D5185m | >4   | <b>0</b>    | 0    | 0    |
| Copper       | ppm    | ASTM D5185m | >10  | <b>0</b>    | <1   | <1   |
| Tin          | ppm    | ASTM D5185m | >2   | <b>0</b>    | 0    | 0    |
| Vanadium     | ppm    | ASTM D5185m |      | <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

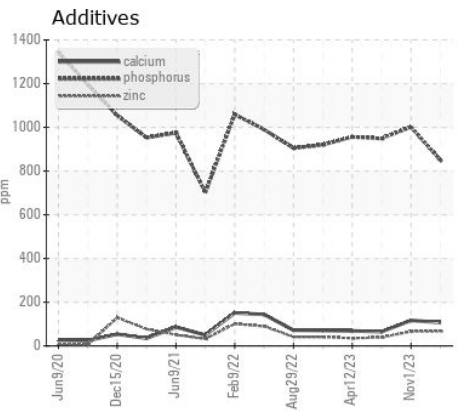
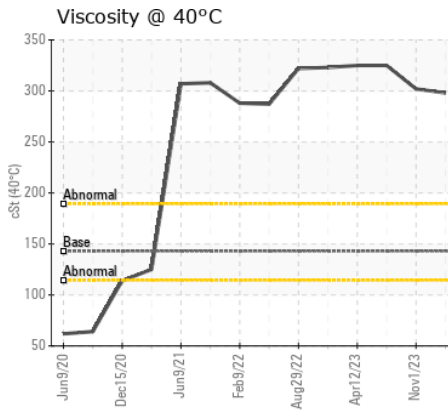
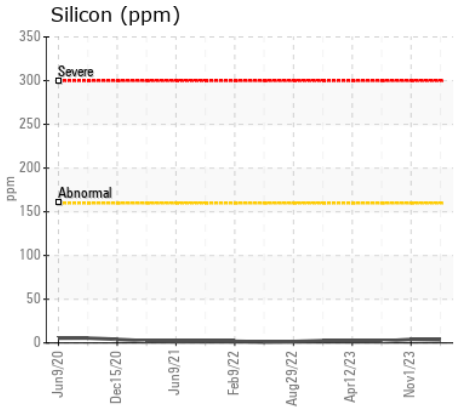
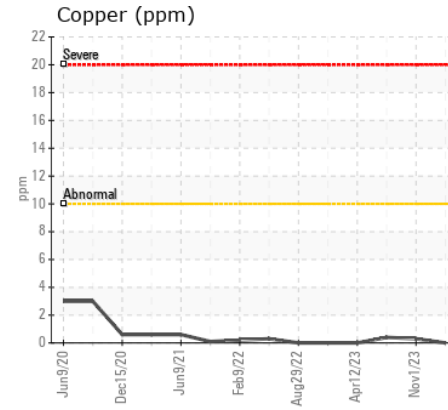
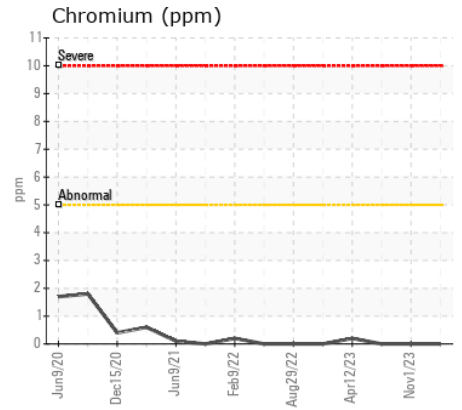
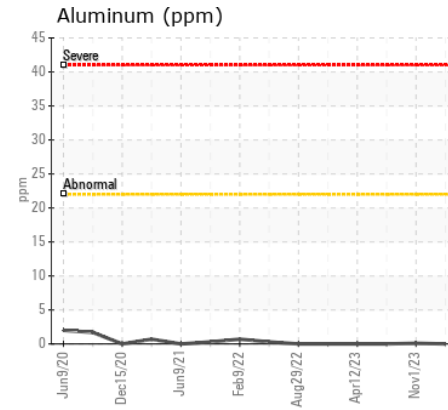
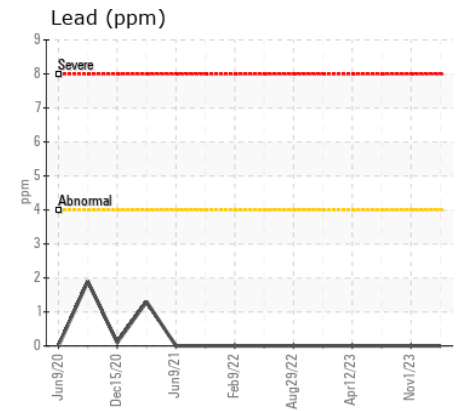
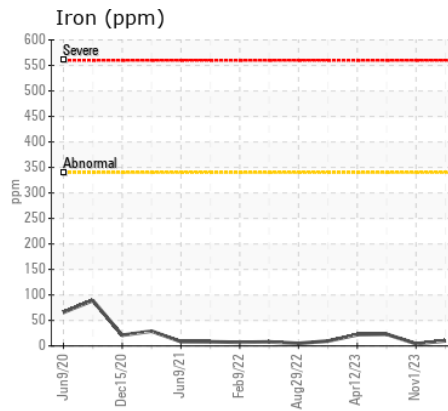
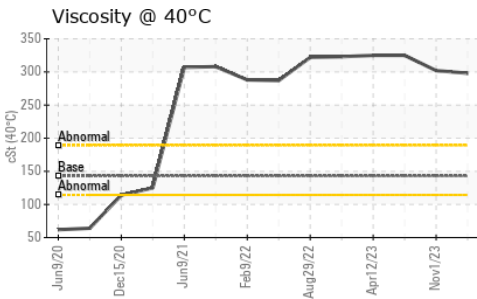
There is no indication of any contamination in the oil.

|                  |        |             |       |              |       |       |
|------------------|--------|-------------|-------|--------------|-------|-------|
| Silicon          | ppm    | ASTM D5185m | >160  | <b>4</b>     | 4     | 2     |
| Potassium        | ppm    | ASTM D5185m | >20   | <b>1</b>     | 0     | 1     |
| Water            |        | WC Method   | >0.2  | <b>NEG</b>   | NEG   | NEG   |
| Silt             | scalar | *Visual     | NONE  | <b>NONE</b>  | NONE  | NONE  |
| Debris           | scalar | *Visual     | NONE  | <b>LIGHT</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     | >0.2  | <b>NEG</b>   | NEG   | NEG   |

### FLUID CONDITION

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

|             |     |             |       |              |       |       |
|-------------|-----|-------------|-------|--------------|-------|-------|
| Sodium      | ppm | ASTM D5185m | >170  | <b>&lt;1</b> | <1    | 0     |
| Boron       | ppm | ASTM D5185m | 400   | <b>168</b>   | 191   | 187   |
| Barium      | ppm | ASTM D5185m | 200   | <b>0</b>     | 0     | 0     |
| Molybdenum  | ppm | ASTM D5185m | 12    | <b>17</b>    | 19    | 2     |
| Manganese   | ppm | ASTM D5185m |       | <b>0</b>     | <1    | <1    |
| Magnesium   | ppm | ASTM D5185m | 12    | <b>25</b>    | 31    | 13    |
| Calcium     | ppm | ASTM D5185m | 150   | <b>107</b>   | 117   | 65    |
| Phosphorus  | ppm | ASTM D5185m | 1650  | <b>850</b>   | 1002  | 949   |
| Zinc        | ppm | ASTM D5185m | 125   | <b>67</b>    | 66    | 39    |
| Sulfur      | ppm | ASTM D5185m | 22500 | <b>21847</b> | 21523 | 21836 |
| Visc @ 40°C | cSt | ASTM D445   | 143   | <b>298</b>   | 302   | 325   |



Certificate L2367

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

Sample No. : VCP452432

Lab Number : 06121180

Unique Number : 10930013

Test Package : MOB 1

Received : 18 Mar 2024

Tested : 19 Mar 2024

Diagnosed : 20 Mar 2024 - Don Baldrige

SAIIA CONSTRUCTION LLC

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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)