WEAR CONTAMINATION FLUID CONDITION

SEVERE SEVERE NORMAL

Machine Id

## **VOLVO EC350E 310403**

| RECOMMENDATION  | Test               | UOM    | Method                     | Limit/Abn   | Current        | Lliotom 11 | Lictor O |
|---|--------------------|--------|----------------------------|-------------|----------------|------------|----------|
|   | Sample Number      | UOIVI  | Client Info                | LITTIL/ADTI | ML0001960      | History1   | History2 |
| We advise that you check all areas where dirt can enter the system. We advise that you check for the source of water entry. We recommend that you drain the oil from the component if this has not already been done. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition. | Sample Number      |        | Client Info                |             | 23 May 2024    |            |          |
|   | Machine Age        | hrs    | Client Info                |             | 9621           |            |          |
|   | Oil Age            | hrs    | Client Info                |             | 0              |            |          |
|   | Filter Age         | hrs    | Client Info                |             | 0              |            |          |
|   | Oil Changed        | 1110   | Client Info                |             | Not Changd     |            |          |
|   | Filter Changed     |        | Client Info                |             | Not Change     |            |          |
|   | Sample Status      |        |                            |             | SEVERE         |            |          |
| NEAD  |                    |        |                            | 4000        |                |            |          |
| WEAR Gear wear is indicated.  | Iron               | ppm    | ASTM D5185m                |             | ▲ 14983        |            |          |
|   | Chromium           | ppm    | ASTM D5185m                |             | <b>▲</b> 120   |            |          |
|   | Nickel             | ppm    | ASTM D5185m                | >5          | 13             |            |          |
|   | Titanium<br>Silver | ppm    | ASTM D5185m<br>ASTM D5185m |             | 265            |            |          |
|   | Aluminum           | ppm    | ASTM D5185m                | > 100       | 0<br>2632      |            |          |
|   | Lead               | ppm    | ASTM D5185m                |             | 2              |            |          |
|   | Copper             | ppm    | ASTM D5185m                |             | 34             |            |          |
|   | Tin                | ppm    | ASTM D5185m                |             | 3              |            |          |
|   | Vanadium           | ppm    | ASTM D5185m                | 70          | 7              |            |          |
|   | White Metal        | scalar | *Visual                    | NONE        | NONE           |            |          |
|   | Yellow Metal       | scalar | *Visual                    | NONE        | NONE           |            |          |
| CONTAMINATION   |                    |        |                            |             |                |            |          |
| CONTAMINATION  Elemental levels of silicon (Si) and aluminum (Al) indicate aluminasilicate (coarse dirt) ingress. There is a moderate concentration of water present in the oil.  | Silicon            | ppm    | ASTM D5185m                |             | <b>▲</b> 9723  |            |          |
|   | Potassium          | ppm    | ASTM D5185m                |             | 733            |            |          |
|   | Water              | %      | ASTM D6304                 | >0.25       | 0.833          |            |          |
|   | ppm Water<br>Silt  | ppm    | *Visual                    |             | ▲ 8330<br>NONE |            |          |
|   | Debris             | scalar | *Visual                    | NONE        | NONE           |            |          |
|   | Sand/Dirt          | scalar | *Visual                    | NONE        | NONE           |            |          |
|   | Appearance         | scalar | *Visual                    | NORML       | NORML          |            |          |
|   | Odor               | scalar | *Visual                    | NORML       | NORML          |            |          |
|   | Emulsified Water   |        | *Visual                    | >0.25       | ▲ 0.2%         |            |          |
|   |                    |        |                            |             |                |            |          |
| FLUID CONDITION   | Sodium             | ppm    | ASTM D5185m                | >170        | 389            |            |          |
| The oil is no longer serviceable due to the presence of contaminants.   | Boron              | ppm    | ASTM D5185m                |             | 97             |            |          |
|   | Barium             | ppm    | ASTM D5185m                |             | 17             |            |          |
|   | Molybdenum         | ppm    | ASTM D5185m                | 12          | 19             |            |          |
|   | Manganese          | ppm    | ASTM D5185m                |             | 118            |            |          |
|   | Magnesium          | ppm    | ASTM D5185m                |             | 410            |            |          |
|   | Calcium            | ppm    | ASTM D5185m                | 150         | 493            |            |          |

Phosphorus

Zinc

Sulfur

ppm

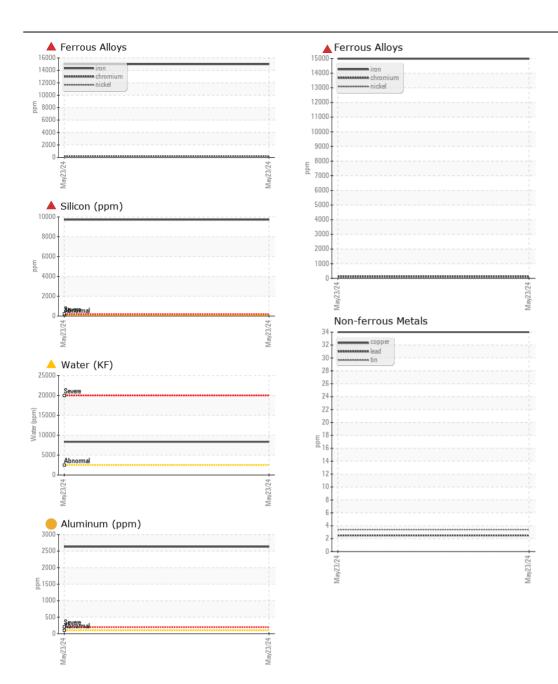
687

31 77716

ASTM D5185m 1650

ASTM D5185m 125

ASTM D5185m 22500





Certificate L2367

Laboratory Sample No.

: ML0001960 Lab Number : 06194444

Unique Number : 11056567 Test Package : CONST ( Additional Tests: KF )

Received **Tested** Diagnosed

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : 29 May 2024 : 31 May 2024

: 31 May 2024 - Sean Felton

**WILLIAM HAZEL** PO BOX 600 CHANTILLY, VA US 20153

Contact: SERVICE MANAGER jimmy\_elswick@wahazel.com

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)

F:

T: (703)378-8300