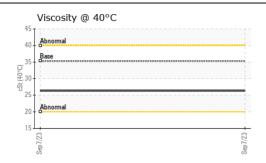


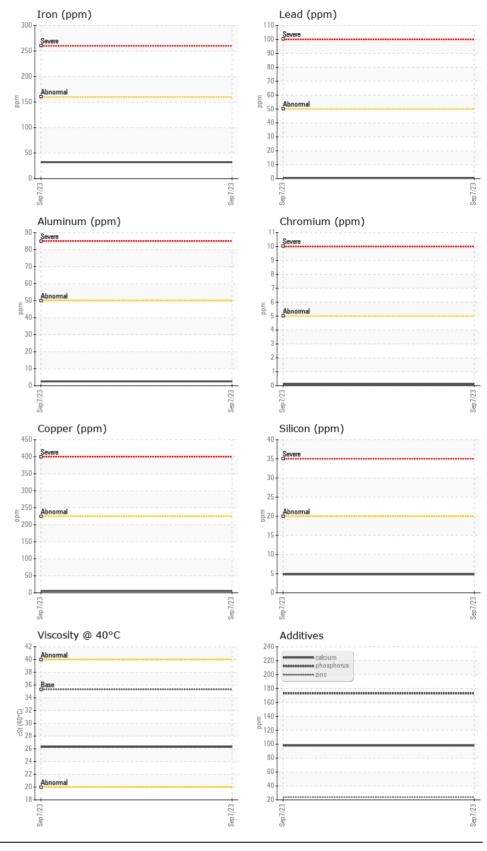
[D12756] VOLVO L110G 8939 onen Transmission (Auto)

## VOLVO AUTOMATIC TRANSMISSION FLUID AT102 (--- GAL)

| RECOMMENDATION  | Test   | UOM   | Method  | Limit/Abn  | Current  | History1     | History2         |
|---|--|---|---|--|--|--------------|------------------|
|   | Sample Number  | 00111   | Client Info   | Linity ton   | VCP360499  |              |                  |
| Resample at the next service interval to monitor.   | Sample Date  |   | Client Info   |  | 07 Sep 2023  |              |                  |
|   | Machine Age  | hrs   | Client Info   |  | 10769  |              |                  |
|   | Oil Age  | hrs   | Client Info   |  | 0  |              |                  |
|   | Filter Age   | hrs   | Client Info   |  | 0  |              |                  |
|   | Oil Changed  |   | Client Info   |  | Not Changd   |              |                  |
|   | Filter Changed   |   | Client Info   |  | Not Changd   |              |                  |
|   | Sample Status  |   |   |  | NORMAL   |              |                  |
|   |  |   |   |  |  |              |                  |
| WEAR  | Iron   | ppm   | ASTM D5185m   |  | 32   |              |                  |
| All component wear rates are normal. The wear metal levels do not reflect the reported issue. | Chromium   | ppm   | ASTM D5185m   | >5   | <1   |              |                  |
|   | Nickel   | ppm   | ASTM D5185m   | >5   | 0  |              |                  |
|   | Titanium   | ppm   | ASTM D5185m   |  | 0  |              |                  |
|   | Silver   | ppm   | ASTM D5185m   |  | 0  |              |                  |
|   | Aluminum   | ppm   | ASTM D5185m   |  | 2  |              |                  |
|   | Lead   | ppm   | ASTM D5185m   |  | <1   |              |                  |
|   | Copper   | ppm   | ASTM D5185m   | >225   | 5  |              |                  |
|   | Tin  | ppm   | ASTM D5185m   | >10  | <1   |              |                  |
|   | Vanadium   | ppm   | ASTM D5185m   |  | 0  |              |                  |
|   | White Metal  | scalar  | *Visual   | NONE   | NONE   |              |                  |
|   | Yellow Metal   | scalar  | *Visual   | NONE   | NONE   |              |                  |
|   |  |   |   |  |  |              |                  |
| CONTAMINATION   | Silicon  | maa   | ASTM D5185m   | >20  | 5  |              |                  |
|   | Silicon<br>Potassium   | ppm<br>maa  | ASTM D5185m<br>ASTM D5185m  | >20<br>>20   | 5<br>3   |              |                  |
| CONTAMINATION<br>There is no indication of any contamination in the fluid.                    | Potassium  | ppm<br>ppm  | ASTM D5185m   | >20  | 3  |              |                  |
|   | Potassium<br>Water   | ppm   | ASTM D5185m<br>WC Method  | >20<br>>0.1  | 3<br>NEG   |              |                  |
|   | Potassium  | ppm<br>scalar   | ASTM D5185m<br>WC Method<br>*Visual   | >20  | 3<br>NEG<br>NONE   |              |                  |
|   | Potassium<br>Water<br>Silt<br>Debris   | ppm<br>scalar<br>scalar   | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual  | >20<br>>0.1<br>NONE<br>NONE  | 3<br>NEG<br>NONE<br>NONE   |              |                  |
|   | Potassium<br>Water<br>Silt   | ppm<br>scalar   | ASTM D5185m<br>WC Method<br>*Visual   | >20<br>>0.1<br>NONE  | 3<br>NEG<br>NONE   | <br>         |                  |
|   | Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt  | ppm<br>scalar<br>scalar<br>scalar   | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual  | >20<br>>0.1<br>NONE<br>NONE<br>NONE  | 3<br>NEG<br>NONE<br>NONE<br>NONE   | <br><br>     |                  |
|   | Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance  | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar   | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual  | >20<br>>0.1<br>NONE<br>NONE<br>NONE  | 3<br>NEG<br>NONE<br>NONE<br>NONE<br>NORML  | <br><br><br> |                  |
| There is no indication of any contamination in the fluid.                                     | Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water  | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar   | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual  | >20<br>>0.1<br>NONE<br>NONE<br>NORML<br>NORML  | 3<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG  |              |                  |
| There is no indication of any contamination in the fluid.                                     | Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium  | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar   | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m  | >20<br>>0.1<br>NONE<br>NONE<br>NORML<br>NORML<br>>0.1  | 3<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>5   |              |                  |
| There is no indication of any contamination in the fluid.                                     | Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron   | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm  | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m   | >20<br>>0.1<br>NONE<br>NONE<br>NORML<br>>0.1   | 3<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>5<br>5  |              |                  |
| There is no indication of any contamination in the fluid.                                     | Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium   | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm                                 | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m  | >20<br>>0.1<br>NONE<br>NONE<br>NORML<br>>0.1<br>187<br>0.0   | 3<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>5<br>54<br>0                                    |              | <br><br><br><br> |
| There is no indication of any contamination in the fluid.                                     | Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum   | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm                                    | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | >20<br>>0.1<br>NONE<br>NONE<br>NORML<br>NORML<br>>0.1<br>187<br>0.0  | 3<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>5<br>54<br>0<br><1                              |              |                  |
| There is no indication of any contamination in the fluid.                                     | Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese                                  | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm                             | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | >20<br>>0.1<br>NONE<br>NONE<br>NORML<br>>0.1<br>187<br>0.0<br>0.0<br>0.0   | 3<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>5<br>54<br>0<br><1<br>1                         |              |                  |
| There is no indication of any contamination in the fluid.                                     | Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Boron<br>Barium<br>Barium<br>Manganese<br>Magnesium                                   | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | >20<br>>0.1<br>NONE<br>NONE<br>NORML<br>NORML<br>>0.1<br>187<br>0.0<br>0.0<br>0.0<br>6.8                             | 3<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>5<br>54<br>0<br><1<br>1<br>2                    |              |                  |
| There is no indication of any contamination in the fluid.                                     | Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium           | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm               | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m                           | >20<br>>0.1<br>NONE<br>NONE<br>NORML<br>NORML<br>>0.1<br>187<br>0.0<br>0.0<br>0.0<br>6.8<br>215                      | 3<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>5<br>54<br>0<br><1<br>1<br>2<br>98              |              |                  |
| FLUID CONDITION   | Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Boron<br>Barium<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium          | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m                | >20<br>>0.1<br>NONE<br>NONE<br>NORML<br>>0.1<br>187<br>0.0<br>0.0<br>0.0<br>6.8<br>215<br>445                        | 3<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>5<br>54<br>0<br><1<br>1<br>2<br>98<br>173       |              |                  |
| There is no indication of any contamination in the fluid.                                     | Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Boron<br>Barium<br>Boron<br>Barium<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m | >20<br>>0.1<br>NONE<br>NONE<br>NORML<br>NORML<br>>0.1<br>187<br>0.0<br>0.0<br>0.0<br>6.8<br>215<br>445<br>56         | 3<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>5<br>54<br>0<br><1<br>1<br>2<br>98<br>173<br>24 |              |                  |
| There is no indication of any contamination in the fluid.                                     | Potassium<br>Water<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Boron<br>Barium<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium          | ppm<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm        | ASTM D5185m<br>WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m                | >20<br>>0.1<br>NONE<br>NONE<br>NORML<br>NORML<br>>0.1<br>187<br>0.0<br>0.0<br>0.0<br>6.8<br>215<br>445<br>56<br>1336 | 3<br>NEG<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>5<br>54<br>0<br><1<br>1<br>2<br>98<br>173       |              |                  |

Contact/Location: GLENN OTTENBACHER - VOLVO0069





ARING EQUIPMENT COMPANY INC - MAIN (MILWAUKEE) Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : VCP360499 Received 13001 W SILVERE SPRING DR : 12 Sep 2023 Lab Number : 05949698 Tested : 14 Sep 2023 BUTLER, WI Unique Number : 10645657 : 15 Sep 2023 - Jonathan Hester US 53007 Diagnosed Test Package : MOBCE Contact: GLENN OTTENBACHER Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. gottenbacher@aring.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (262)282-0715 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (262)781-5053

Contact/Location: GLENN OTTENBACHER - VOLVO0069