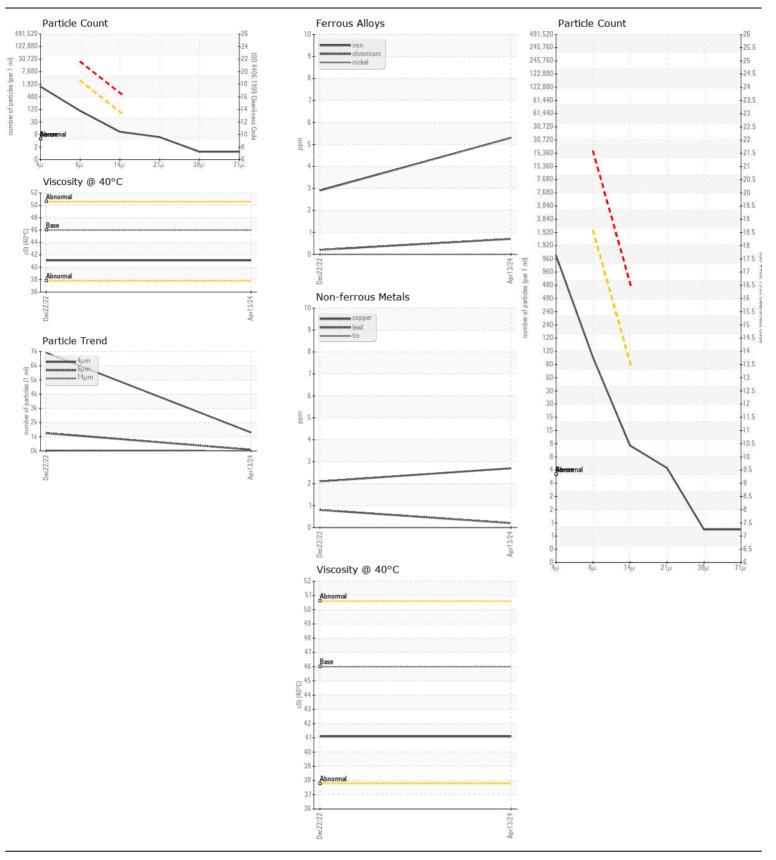


[399876] 622667

Hydraulic System

## VOLVO SUPER HYDRAULIC OIL 46 (--- GAL)

|   |                  |            |                                |             | ( )         |             |          |
|---|------------------|------------|--------------------------------|-------------|-------------|-------------|----------|
| RECOMMENDATION  | Test             | UOM        | Method                         | Limit/Abn   | Current     | History1    | History2 |
| Resample at the next service interval to monitor.   | Sample Number    |            | Client Info                    |             | VCP450208   | VCP352911   |          |
|   | Sample Date      |            | Client Info                    |             | 13 Apr 2024 | 22 Dec 2022 |          |
|   | Machine Age      | hrs        | Client Info                    |             | 3000        | 1053        |          |
|   | Oil Age          | hrs        | Client Info                    |             | 3000        | 1000        |          |
|   | Filter Age       | hrs        | Client Info                    |             | 0           | 0           |          |
|   | Oil Changed      |            | Client Info                    |             | Not Changd  | Not Changd  |          |
|   | Filter Changed   |            | Client Info                    |             | Not Changd  | Not Changd  |          |
|   | Sample Status    |            |                                |             | NORMAL      | NORMAL      |          |
| WEAR  | Iron             | ppm        | ASTM D5185(m)                  | <u>∖</u> 50 | 5           | 3           |          |
| All component wear rates are normal.  | Chromium         | ppm        | ASTM D5185(m)                  |             | <1          | <1          |          |
|   | Nickel           | ppm        | ASTM D5185(m)                  | >10         | 0           | 0           |          |
|   | Titanium         | ppm        | ASTM D5185(m)                  | 210         | 0           | 0           |          |
|   | Silver           | ppm        | ASTM D5185(m)                  |             | 0           | 0           |          |
|   | Aluminum         |            | ASTM D5185(m)                  | > 20        | ۰<br><1     | <1          |          |
|   | Lead             | ppm        | ASTM D5185(m)<br>ASTM D5185(m) | >20<br>>20  | <1<br><1    | <1          |          |
|   | Copper           | ppm        | ASTM D5185(m)                  |             | 3           | 2           |          |
|   | Tin              | ppm        | ASTM D5185(m)<br>ASTM D5185(m) |             | 0           | 2           |          |
|   | Vanadium         | ppm<br>ppm | ASTM D5185(m)                  | 220         | 0           | 0           |          |
|   | White Metal      | scalar     | Visual*                        | NONE        | NONE        | NONE        |          |
|   | Yellow Metal     |            | Visual*                        | NONE        | NONE        | NONE        |          |
|   |                  | scalar     | visual                         | NONE        |             | NONE        |          |
| CONTAMINATION   | Silicon          | ppm        | ASTM D5185(m)                  | >20         | 3           | 3           |          |
| The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. | Potassium        | ppm        | ASTM D5185(m)                  | >20         | <1          | <1          |          |
|   | Water            |            | WC Method                      | >0.1        | NEG         | NEG         |          |
|   | Particles >4µm   |            | ASTM D7647                     |             | 1304        | 6919        |          |
|   | Particles >6µm   |            | ASTM D7647                     | >2500       | 90          | 1257        |          |
|   | Particles >14µm  |            | ASTM D7647                     |             | 9           | 62          |          |
|   | Particles >21µm  |            | ASTM D7647                     |             | 5           | 7           |          |
|   | Particles >38µm  |            | ASTM D7647                     | >4          | 1           | 0           |          |
|   | Particles >71µm  |            | ASTM D7647                     | >3          | 1           | 0           |          |
|   | Oil Cleanliness  |            | ISO 4406 (c)                   | >/18/13     | 18/14/10    | 20/17/13    |          |
|   | 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 |            | Visual*                        | >0.1        | NEG         | NEG         |          |
|   |                  |            |                                |             |             |             |          |
| FLUID CONDITION   | Sodium           | ppm        | ASTM D5185(m)                  |             | <1          | <1          |          |
| The condition of the oil is acceptable for the time in service.   | Boron            | ppm        | ASTM D5185(m)                  | 14          | <1          | <1          |          |
|   | Barium           | ppm        | ASTM D5185(m)                  | 0.0         | 0           | 0           |          |
|   | Molybdenum       | ppm        | ASTM D5185(m)                  | 0.0         | 0           | <1          |          |
|   | Manganese        | ppm        | ASTM D5185(m)                  | 0.0         | <1          | <1          |          |
|   | Magnesium        | ppm        | ASTM D5185(m)                  | 2.6         | 4           | 4           |          |
|   | Calcium          | ppm        | ASTM D5185(m)                  | 49          | 63          | 61          |          |
|   | Phosphorus       | ppm        | ASTM D5185(m)                  | 354         | 333         | 366         |          |
|   | Zinc             | ppm        | ASTM D5185(m)                  | 419         | 430         | 426         |          |
|   | Sulfur           | ppm        | ASTM D5185(m)                  | 3719        | 2058        | 2233        |          |
|   |                  |            |                                |             |             |             |          |



CRH CANADA GROUP INC. Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 CALA Sample No. Received P.O. BOX 5400 : VCP450208 : 17 Apr 2024 Ø CONCORD, ON Lab Number : 02629664 Tested : 18 Apr 2024 ISO 17025:2017 Accredited Laboratory : 18 Apr 2024 - Wes Davis CA L4K 1B6 Unique Number : 5762796 Diagnosed Test Package : MOB 1 (Additional Tests: PrtCount) Contact: Dan Brown To discuss this sample report, contact Customer Service at 1-800-268-2131. dan.brown@ca.crh.com T: Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab. F: Validity of results and interpretation are based on the sample and information as supplied.