

## Machine Id VOLVO A45G 352353 Component Wet Disc Brake Fluid {not provided} (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

## **WEAR**

The iron level is abnormal. The copper level is abnormal.

## CONTAMINATION

There is no indication of any contamination in the oil.

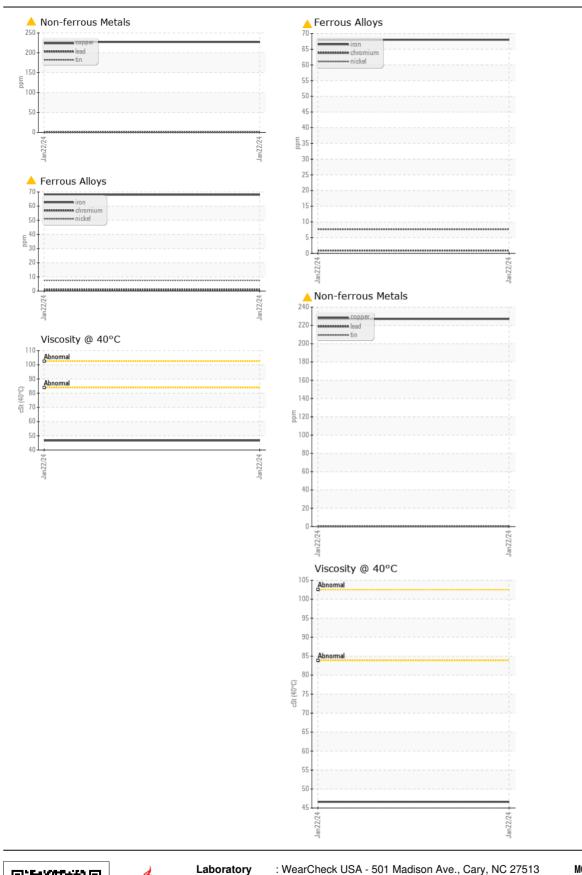
## FLUID CONDITION

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

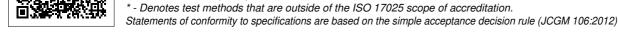
|   |   |   |  | ~~~~~   |                  |                  |
|---|---|---|--|---|------------------|------------------|
| Test  | UOM   | Method  | Limit/Abn                              | Current   | History1         | History2         |
| Sample Number   |   | Client Info   |  | ML0000518   |                  |                  |
| Sample Date   |   | Client Info   |  | 22 Jan 2024   |                  |                  |
| Machine Age   | hrs   | Client Info   |  | 4155  |                  |                  |
| Oil Age   | hrs   | Client Info   |  | 0   |                  |                  |
| Filter Age  | hrs   | Client Info   |  | 0   |                  |                  |
| Oil Changed   |   | Client Info   |  | Changed   |                  |                  |
| Filter Changed  |   | Client Info   |  | Changed   |                  |                  |
| Sample Status   |   |   | ABNORMAL                               |   |                  |                  |
| Iron  |   | ASTM D5185m   | >20                                    | 68  |                  |                  |
| Chromium  | ppm   | ASTM D5185m   | >20                                    | <1 00   |                  |                  |
| Nickel  | ppm   | ASTM D5185m   | >10                                    | 8   |                  |                  |
| Titanium  | ppm   | ASTM D5185m   | >10                                    | o<br><1   |                  |                  |
| Silver  | ppm   | ASTM D5185m   |  | 0   |                  |                  |
| Aluminum  | ppm   | ASTM D5185m   | >10                                    | 2   |                  |                  |
| Lead  | ppm   | ASTM D5185m   | >10                                    | 2<br><1   |                  |                  |
| Copper  | ppm   | ASTM D5185m   | >75                                    | <1  |                  |                  |
| Tin   | ppm   | ASTM D5185m   |  | 227   |                  |                  |
| Vanadium  | ppm   | ASTM D5185m   | >10                                    | <1  |                  |                  |
| White Metal   | ppm<br>scalar   | *Visual   | NONE                                   | NONE  |                  |                  |
| Yellow Metal  |   | *Visual   | NONE                                   | NONE  |                  |                  |
|   | scalar  | visual  | NONE                                   | NONE  |                  |                  |
| Silicon   | ppm   | ASTM D5185m   | >20                                    | 18  |                  |                  |
| Potassium   | ppm   | ASTM D5185m   | >20                                    | 4   |                  |                  |
|   | 1-1-  | NOTIVI DOTOOIII   |  | -   |                  |                  |
| Water   | 1-1-  | WC Method   | >0.1                                   | NEG   |                  |                  |
| Water<br>Silt   | scalar  |   |  | NEG<br>LIGHT  |                  |                  |
|   |   | WC Method   | >0.1                                   |   |                  |                  |
| Silt  | scalar  | WC Method<br>*Visual  | >0.1<br>NONE                           | LIGHT   |                  |                  |
| Silt<br>Debris  | scalar<br>scalar  | WC Method<br>*Visual<br>*Visual   | >0.1<br>NONE<br>NONE                   | LIGHT   | <br>             |                  |
| Silt<br>Debris<br>Sand/Dirt   | scalar<br>scalar<br>scalar  | WC Method<br>*Visual<br>*Visual<br>*Visual  | >0.1<br>NONE<br>NONE<br>NONE           | LIGHT<br>NONE<br>NONE   |                  |                  |
| Silt<br>Debris<br>Sand/Dirt<br>Appearance   | scalar<br>scalar<br>scalar<br>scalar  | WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual   | >0.1<br>NONE<br>NONE<br>NONE<br>NORML  | LIGHT<br>NONE<br>NONE<br>NORML  | <br><br>         |                  |
| Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water   | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar  | WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual   | >0.1<br>NONE<br>NONE<br>NORML<br>NORML | LIGHT<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG  | <br><br><br><br> | <br><br><br><br> |
| Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium   | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar  | WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m   | >0.1<br>NONE<br>NONE<br>NORML<br>NORML | LIGHT<br>NONE<br>NONE<br>NORML<br>NORML<br>NEG<br>3   |                  |                  |
| Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron  | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm   | WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m  | >0.1<br>NONE<br>NONE<br>NORML<br>NORML | LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>107  |                  |                  |
| Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium  | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm                                    | WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m  | >0.1<br>NONE<br>NONE<br>NORML<br>NORML | LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>107<br>0   |                  |                  |
| Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum  | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm                             | WC Method<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | >0.1<br>NONE<br>NONE<br>NORML<br>NORML | LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>107<br>0<br><1                                   |                  |                  |
| Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese   | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm                      | 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   | >0.1<br>NONE<br>NONE<br>NORML<br>NORML | LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>107<br>0<br><1<br>2                              |                  |                  |
| Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium                                  | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm                      | 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   | >0.1<br>NONE<br>NONE<br>NORML<br>NORML | LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>107<br>0<br><1<br>2<br>7                         |                  |                  |
| Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium                       | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm               | 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                | >0.1<br>NONE<br>NONE<br>NORML<br>NORML | LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>107<br>0<br><1<br>2<br>7<br>3162                 |                  |                  |
| Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium                       | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | 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                | >0.1<br>NONE<br>NONE<br>NORML<br>NORML | LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>107<br>0<br><1<br>2<br>7<br>3162<br>1169         |                  |                  |
| Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | 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<br>ASTM D5185m | >0.1<br>NONE<br>NONE<br>NORML<br>NORML | LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>107<br>0<br><1<br>2<br>7<br>3162<br>1169<br>1414 |                  |                  |
| Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor<br>Emulsified Water<br>Sodium<br>Boron<br>Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium                       | scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>scalar<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | 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                | >0.1<br>NONE<br>NONE<br>NORML<br>NORML | LIGHT<br>NONE<br>NORML<br>NORML<br>NEG<br>3<br>107<br>0<br><1<br>2<br>7<br>3162<br>1169         |                  |                  |

Report Id: VOLVO8882 [WUSCAR] 06074188 (Generated: 01/31/2024 17:33:59) Rev: 1

Contact/Location: KYLE RATLIFFE - VOLVO8882



MCCLUNG-LOGAN EQUIPMENT CO - RICHMOND 1345 MOUNTAIN ROAD GLEN ALLEN, VA US 23060 Contact: KYLE RATLIFFE KRATLIFFE@MCCLUNG-LOGAN.COM T: M 106:2012) F: (804)266-1611



Certificate L2367

Sample No.

Lab Number

Unique Number

Test Package : CONST

: ML0000518

:06074188

: 10856279

To discuss this sample report, contact Customer Service at 1-800-237-1369.

Recieved

Diagnosed

Diagnostician

: 30 Jan 2024

: 31 Jan 2024

: Jonathan Hester

Contact/Location: KYLE RATLIFFE - VOLVO8882

Page 2 of 2