



# CONSTRUCTION EQUIPMENT

SW1026951-10 VOLVO EC480 310140 (S/N 310141) - LEFT SWING DRIVE



**Sample No:** VCP439406  
**Oil Type:** GEAR OIL SAE 80W90  
**Job No:** SW1026951-10



## SAMPLE INFORMATION

|               |             |     |     |     |
|---------------|-------------|-----|-----|-----|
| Sample Number | VCP439406   | --- | --- | --- |
| Sample Date   | 09 Jan 2024 | --- | --- | --- |
| Machine Hours | 8218        | --- | --- | --- |
| Oil Hours     | 0           | --- | --- | --- |
| Oil Changed   | Changed     | --- | --- | --- |
| Sample Status | SEVERE      | --- | --- | --- |

**ARNOLD MACHINERY COMPANY**  
2975 WEST 2100 SOUTH  
SALT LAKE CITY, UT  
US 84119  
Contact: TJ LARK  
tlark@arnoldmachinery.com  
T: (801)972-4000  
F: (801)975-9434

## OIL CONDITION

|             |     |       |     |     |     |
|-------------|-----|-------|-----|-----|-----|
| Visc @ 40°C | cSt | █ 186 | --- | --- | --- |
|-------------|-----|-------|-----|-----|-----|

## CONTAMINATION

|           |     |        |     |     |     |
|-----------|-----|--------|-----|-----|-----|
| Water     | %   | ◆ 1.99 | --- | --- | --- |
| Silicon   | ppm | ▲ 98   | --- | --- | --- |
| Sodium    | ppm | █ 107  | --- | --- | --- |
| Potassium | ppm | █ 456  | --- | --- | --- |

## Diagnosis

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Gear wear is indicated. Appearance is milky. There is a high concentration of water present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. There is a high amount of visible silt present in the sample. The oil is no longer serviceable due to the presence of contaminants.

## WEAR METALS

|            |     |        |     |     |     |
|------------|-----|--------|-----|-----|-----|
| Iron       | ppm | ▲ 1795 | --- | --- | --- |
| Copper     | ppm | █ 51   | --- | --- | --- |
| Lead       | ppm | █ 1    | --- | --- | --- |
| Tin        | ppm | █ 0    | --- | --- | --- |
| Aluminum   | ppm | ▲ 29   | --- | --- | --- |
| Chromium   | ppm | ▲ 38   | --- | --- | --- |
| Molybdenum | ppm | █ 16   | --- | --- | --- |
| Nickel     | ppm | █ 3    | --- | --- | --- |
| Titanium   | ppm | 2      | --- | --- | --- |
| Silver     | ppm | 0      | --- | --- | --- |
| Manganese  | ppm | █ 22   | --- | --- | --- |
| Vanadium   | ppm | <1     | --- | --- | --- |

## ADDITIVES

|            |     |        |     |     |     |
|------------|-----|--------|-----|-----|-----|
| Calcium    | ppm | █ 434  | --- | --- | --- |
| Magnesium  | ppm | █ 66   | --- | --- | --- |
| Zinc       | ppm | █ 157  | --- | --- | --- |
| Phosphorus | ppm | █ 1503 | --- | --- | --- |
| Barium     | ppm | █ 0    | --- | --- | --- |
| Boron      | ppm | █ 304  | --- | --- | --- |

**Depot:** VOLVO8770  
**Unique No:** 10846421  
**Signed:** Jonathan Hester  
**Report Date:** 26 Jan 2024



# CONSTRUCTION EQUIPMENT



## GRAPHS

