

Sample No: VCP428706

Oil Type: GEAR OIL SAE 90W140

Job No: SWO-068407

| SAMPLE | INFORMATION | | | | |
|----------------------|-------------|-------------|--------------|-------------|-------------|
| Sample Number | _ | VCP428706 | VCP428919 | VCP407503 | VCP356257 |
| Sample Date | | 21 Dec 2023 | 07 Sep 2023 | 18 May 2023 | 03 Nov 2022 |
| Machine Hours | | 10648 | 10247 | 9662 | 9133 |
| Oil Hours | | 0 | 0 | 0 | 0 |
| Oil Changed | | Not Changd | Changed | Not Changd | Not Changd |
| Sample Status | | SEVERE | SEVERE | SEVERE | SEVERE |
| | | | | | |
| VOLVO | DITION | | | | |
| OIL CON | | | | | |
| Visc @ 40°C | cSt | ■314 | 559 | 410 | ■314 |
| VOLVO | | | | | |
| CONTAN | MINATION | | | | |
| Water | % | NEG | NEG | NEG | NEG |
| Silicon | | ● 412 | 2230 | 1704 | ● 329 |
| Sodium | ppm | 1 0 | T43 | 29 | ■ 329 |
| Potassium | ppm | 33 | 183 | ■ 151 | 37 |
| Potassium | ppm | <u> </u> | 103 | <u> </u> | <u> </u> |
| VOLVO | | | | | |
| WEAR M | METALS | | | | |
| Iron | ppm | 1556 | 4725 | 3294 | <u> </u> |
| Copper | ppm | ■ 0 | 1 0 | ■8 | 3 |
| Lead | ppm | 0 | 2 | - <1 | 0 |
| Tin | ppm | ■ 0 | 1 | □ 0 | - <1 |
| Aluminum | ppm | 98 | ▲ 529 | 474 | 4 94 |
| Chromium | ppm | ■ 4 | 4 6 | 3 3 | □10 |
| Molybdenum | ppm | ■ 3 | 8 | 6 | 3 |
| Nickel | ppm | ■0 | 8 | 7 | 1 |
| Titanium | ppm | 2 | ■35 | 2 7 | 4 |
| Silver | ppm | 0 | 0 | 0 | 0 |
| Manganese | ppm | ■3 | 30 | 22 | 7 |
| Vanadium | ppm | 0 | 1 | <1 | <1 |
| | | | | | |
| ADDITIV | /FC | | | | |
| | | = 104 | 948 | 834 | 447 |
| Calcium | ppm | ■ 184 44 | | | |
| Magnesium | ppm | | 64 | 173 64 | 89 28 |
| Zinc | ppm | ■ 56 786 | 940 | 892 | 660 |
| Phosphorus Barium | ppm | | 0 | 5 | 0 |
| | ppm | 5 | 152 | 135 | 88 |
| Boron | ppm | 65 | 152 | 135 | δδ |



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Diagnosis

We advise that you check all areas where dirt can enter the system. 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. Gear wear is indicated. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The oil is no longer serviceable due to the presence of contaminants.

Depot:WHIGUNUnique No:10809851Signed:Jonathan HesterReport Date:04 Jan 2024



CONSTRUCTION EQUIPMENT





