Sample No: VCP412007

Oil Type: VOLVO SUPER HYDRAULIC OIL 46

Job No: W113053244

| SAMPLE INFORMATION | | | | |
|--------------------|-------------|-------------|-------------|-------------|
| Sample Number | VCP412007 | VCP420401 | VCP418674 | VCP389525 |
| Sample Date | 20 Jul 2023 | 01 Jun 2023 | 03 May 2023 | 27 Oct 2022 |
| Machine Hours | 13573 | 13304 | 13209 | 12056 |
| Oil Hours | 0 | 0 | 0 | 0 |
| Oil Changed | Not Changd | Not Changd | Not Changd | Changed |
| Sample Status | ABNORMAL | ABNORMAL | ATTENTION | NORMAL |
| VOLVO | | | | |

| OIL CONDITION | | | | | | |
|------------------|----------|-------------|-------------|-------------|-------------|--|
| Visc @ 40°C | cSt | 44.9 | 43.7 | 45.0 | 43.8 | |
| Acid Number (AN) | mg KOH/g | ■ 0.42 | □ 0.39 | ■ 0.35 | ■0.38 | |
| | | | | | | |

| CONTAMINATION | | | | | | |
|-------------------|-----|---------------|----------------|-------------|----------|--|
| Particles >4µm | | | 49853 | 8044 | 1276 | |
| Particles >6µm | | | △ 16216 | 2487 | ■298 | |
| Particles >14µm | | | <u></u> 664 | 1 85 | ■35 | |
| ISO 4406:1999 (c) | | *** | 23/21/17 | 20/18/15 | 17/15/12 | |
| Silicon | ppm | 6 | 5 | 4 | 5 | |
| Sodium | ppm | 2 | 5 | 4 | 0 | |
| Potassium | ppm | -<1 | 2 | < 1 | 1 | |

| WEAR METALS | | | | | | |
|-------------|-----|---------------|----------|----------|----------|--|
| Iron | ppm | ■ 9 | ■8 | 7 | 6 | |
| Copper | ppm | ■3 | 3 | ■2 | 2 | |
| Lead | ppm | ■ 3 | 2 | 0 | < 1 | |
| Tin | ppm | ■0 | 0 | □0 | 0 | |
| Aluminum | ppm | 4 | ■3 | ■3 | 4 | |
| Chromium | ppm | ■<1 | 0 | □0 | < 1 | |
| Molybdenum | ppm | ■<1 | 0 | 0 | < 1 | |
| Nickel | ppm | ■0 | 0 | □0 | 0 | |
| Titanium | ppm | 0 | 0 | 0 | <1 | |
| Silver | ppm | 0 | 0 | 0 | <1 | |
| Manganese | ppm | 0 | 0 | < 1 | < 1 | |
| Vanadium | ppm | 0 | 0 | 0 | 0 | |
| | | | | | | |

| ADDITI | VES | | | | |
|------------|-----|------------|------------|------------|-------------|
| Calcium | ppm | 159 | 170 | 157 | 6 9 |
| Magnesium | ppm | ■34 | ■34 | ■33 | 5 2 |
| Zinc | ppm | 414 | 403 | 413 | 454 |
| Phosphorus | ppm | ■341 | ■348 | ■346 | ■366 |
| Barium | ppm | 2 | 0 | 0 | 0 |
| Boron | ppm | ■ 0 | 0 | □0 | - <1 |



Hanson Aggregates - Rocky Mount 10471 NC 97 ROCKY MOUNT, NC US 27801

Contact: Service Manager

T: F:

Diagnosis

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Depot:HANROCUnique No:10573178Signed:Don BaldridgeReport Date:27 Jul 2023

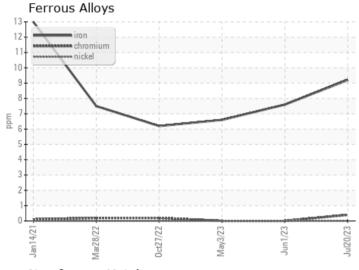


CONSTRUCTION EQUIPMENT

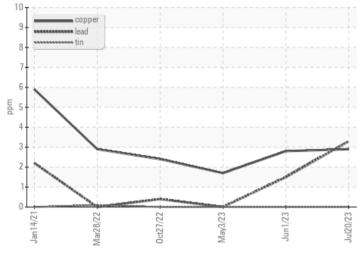




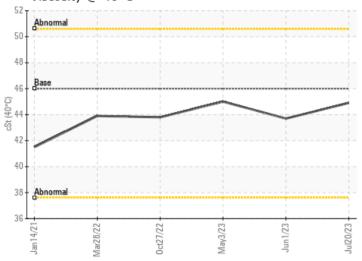
GRAPHS



Non-ferrous Metals



Viscosity @ 40°C



Acid Number

