



CONSTRUCTION EQUIPMENT

VOLVO A45G 352071 - HYDRAULIC SYSTEM



Sample No: VCP431037
Oil Type: AW HYDRAULIC OIL ISO 46
Job No:



SAMPLE INFORMATION

| Sample Number | VCP431037 | VCP431891 | VCP427479 | VCP413109 |
|---------------|-------------|-------------|-------------|-------------|
| Sample Date | 20 Nov 2023 | 30 Oct 2023 | 09 Oct 2023 | 12 Jul 2023 |
| Machine Hours | 7276 | 7148 | 7028 | 6523 |
| Oil Hours | 0 | 0 | 0 | 0 |
| Oil Changed | Not Chngd | Changed | Not Chngd | Changed |
| Sample Status | NORMAL | NORMAL | ABNORMAL | NORMAL |

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OIL CONDITION

| Visc @ 40°C | cSt | 41.0 | 43.8 | 42.0 | 43.2 |
|------------------|----------|------|------|------|------|
| Acid Number (AN) | mg KOH/g | 0.95 | 0.74 | 0.75 | 0.38 |



CONTAMINATION

| Water | % | NEG | NEG | NEG | NEG |
|-------------------|-----|----------|----------|----------|----------|
| Particles >4µm | | 4402 | 1179 | 17267 | 1229 |
| Particles >6µm | | 953 | 134 | 6929 | 104 |
| Particles >14µm | | 47 | 10 | 821 | 8 |
| ISO 4406:1999 (c) | | 19/17/13 | 17/14/10 | 21/20/17 | 17/14/10 |
| Silicon | ppm | 4 | 3 | 4 | 4 |
| Sodium | ppm | <1 | 0 | 2 | 0 |
| Potassium | ppm | 0 | 1 | 2 | <1 |

Diagnosis
 Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



WEAR METALS

| | | | | | |
|------------|-----|----|----|----|----|
| Iron | ppm | 2 | 6 | 4 | 9 |
| Copper | ppm | 1 | 2 | 2 | 3 |
| Lead | ppm | <1 | 2 | 3 | 2 |
| Tin | ppm | 0 | 0 | <1 | <1 |
| Aluminum | ppm | 0 | <1 | 1 | <1 |
| Chromium | ppm | <1 | <1 | <1 | 1 |
| Molybdenum | ppm | 3 | 1 | <1 | <1 |
| Nickel | ppm | 0 | 0 | <1 | 0 |
| Titanium | ppm | <1 | 0 | 0 | 0 |
| Silver | ppm | 0 | 0 | 0 | 0 |
| Manganese | ppm | 0 | 0 | <1 | 0 |
| Vanadium | ppm | <1 | 0 | 0 | 0 |



ADDITIVES

| | | | | | |
|------------|-----|-----|-----|-----|-----|
| Calcium | ppm | 94 | 66 | 91 | 86 |
| Magnesium | ppm | 428 | 218 | 249 | 10 |
| Zinc | ppm | 954 | 682 | 798 | 461 |
| Phosphorus | ppm | 832 | 547 | 616 | 346 |
| Barium | ppm | 0 | 7 | 0 | 2 |
| Boron | ppm | 3 | 0 | <1 | 0 |

Depot: SAIBIR
Unique No: 10783227
Signed: Don Baldrige
Report Date: 17 Dec 2023

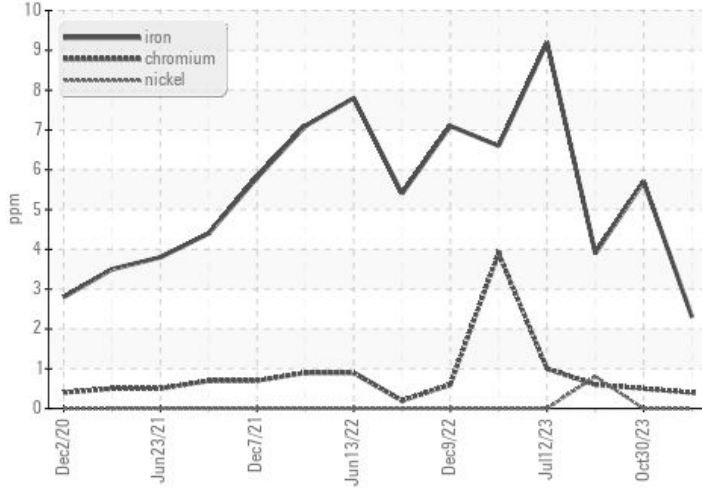


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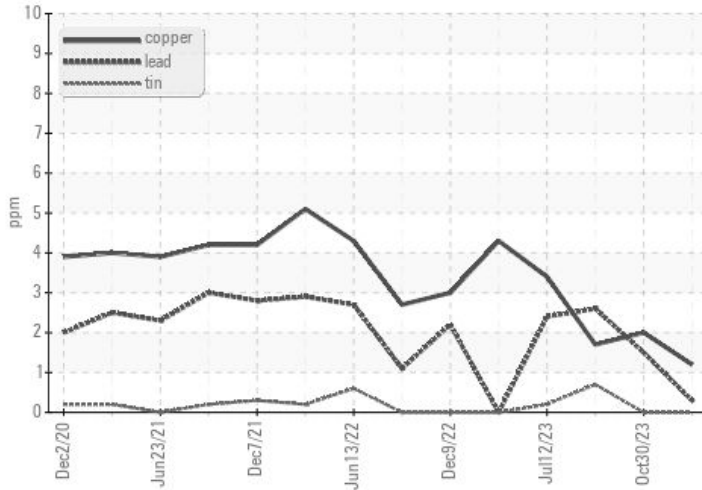


GRAPHS

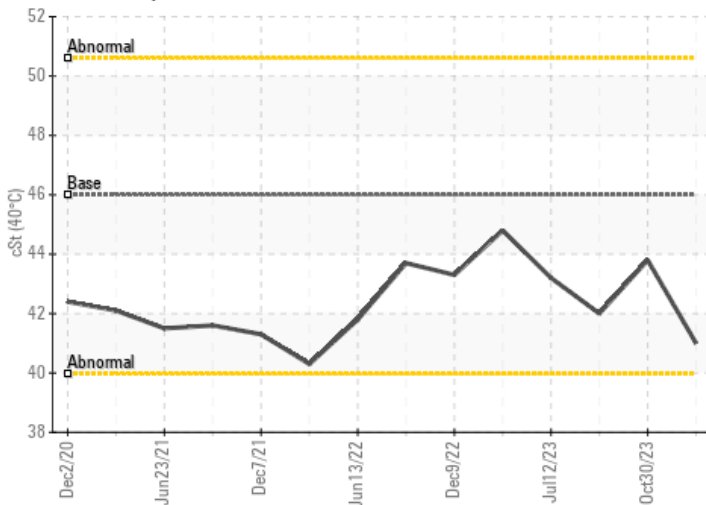
Ferrous Alloys



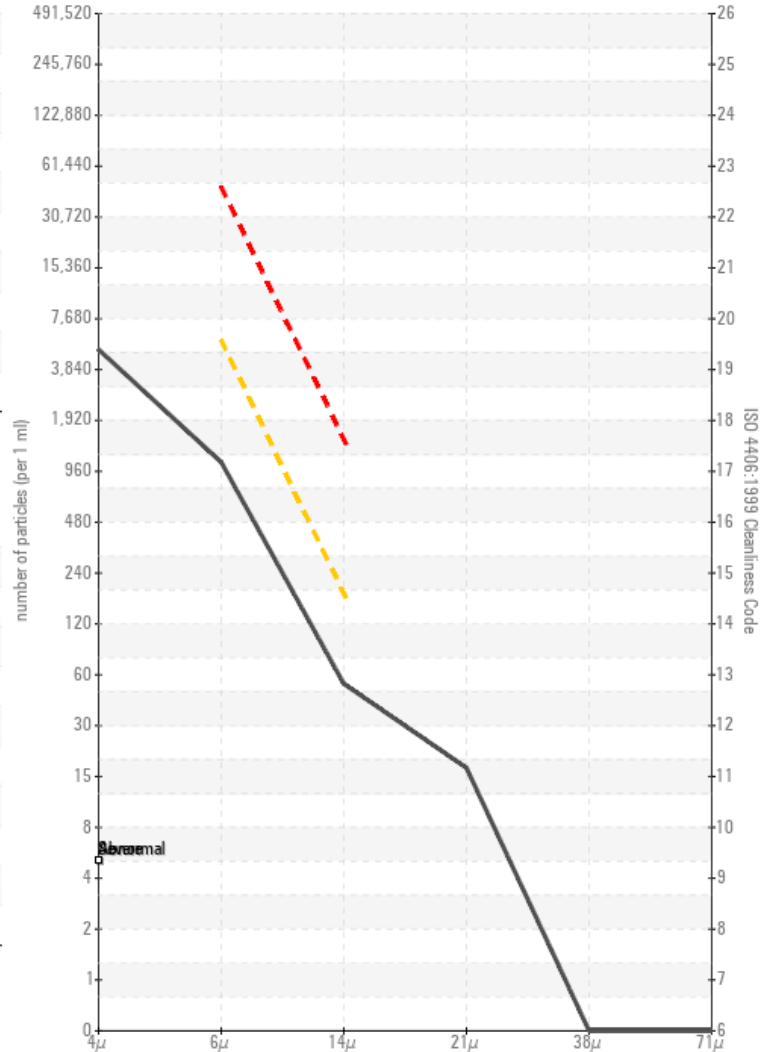
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

