

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50 1203-77107 - Hydraulic System

Sample No: LH0254818

Oil Type: LIEBHERR HYDRAULIC HVI



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SAMPLE INFORMATION

| | | | | |
|---------------|-------------|-------------|-------------|-------------|
| Sample Number | LH0254818 | LH0254032 | LH0243170 | LH0217658 |
| Sample Date | 16 Jun 2023 | 28 Mar 2023 | 22 Dec 2022 | 01 Jul 2022 |
| Machine Hours | 18994 | 18616 | 17940 | 16576 |
| Oil Hours | 0 | 0 | 0 | 0 |
| Oil Changed | Not Changd | Not Changd | Not Changd | Not Changd |
| Sample Status | NORMAL | NORMAL | NORMAL | NORMAL |



OIL CONDITION

| | | | | | |
|------------------|----------|------|------|------|------|
| Visc @ 40°C | cSt | 43.6 | 44.0 | 42.3 | 42.1 |
| Acid Number (AN) | mg KOH/g | 0.51 | 0.42 | 0.64 | 0.55 |



CONTAMINATION

| | | | | | |
|-------------------|-----|---------|----------|----------|----------|
| Particles >4µm | | 946 | 1073 | 2663 | 465 |
| Particles >6µm | | 73 | 371 | 320 | 119 |
| Particles >14µm | | 3 | 33 | 29 | 20 |
| ISO 4406:1999 (c) | | 17/13/9 | 17/16/12 | 19/15/12 | 16/14/11 |
| Silicon | ppm | 4 | 4 | 3 | 2 |
| Sodium | ppm | <1 | <1 | <1 | 3 |
| Potassium | ppm | <1 | 0 | 1 | 0 |



WEAR METALS

| | | | | | |
|------------|-----|----|----|----|----|
| Iron | ppm | 6 | 6 | 17 | 13 |
| Copper | ppm | <1 | 0 | 2 | 2 |
| Lead | ppm | 0 | 0 | <1 | 0 |
| Tin | ppm | 0 | 0 | 0 | 1 |
| Aluminum | ppm | 0 | 0 | 1 | <1 |
| Chromium | ppm | <1 | 0 | <1 | <1 |
| Molybdenum | ppm | <1 | 0 | <1 | <1 |
| Nickel | ppm | 0 | 0 | 0 | <1 |
| Titanium | ppm | 0 | 0 | 0 | 0 |
| Silver | ppm | 0 | 0 | 0 | <1 |
| Manganese | ppm | 0 | <1 | <1 | <1 |
| Vanadium | ppm | 0 | 0 | 0 | 0 |



ADDITIVES

| | | | | | |
|------------|-----|------|------|-----|-----|
| Calcium | ppm | 1161 | 1087 | 732 | 552 |
| Magnesium | ppm | 3 | 14 | 4 | 4 |
| Zinc | ppm | 743 | 769 | 634 | 565 |
| Phosphorus | ppm | 586 | 566 | 518 | 444 |
| Barium | ppm | 0 | 0 | 0 | 0 |
| Boron | ppm | 36 | 31 | 14 | 9 |

Diagnosis

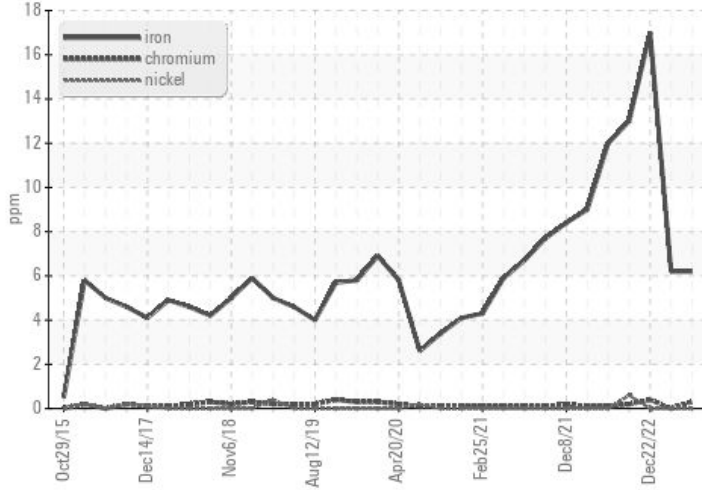
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for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

Depot: LEC0008
 Unique No: 10535568
 Signed: Don Baldrige
 Report Date: 30 Jun 2023

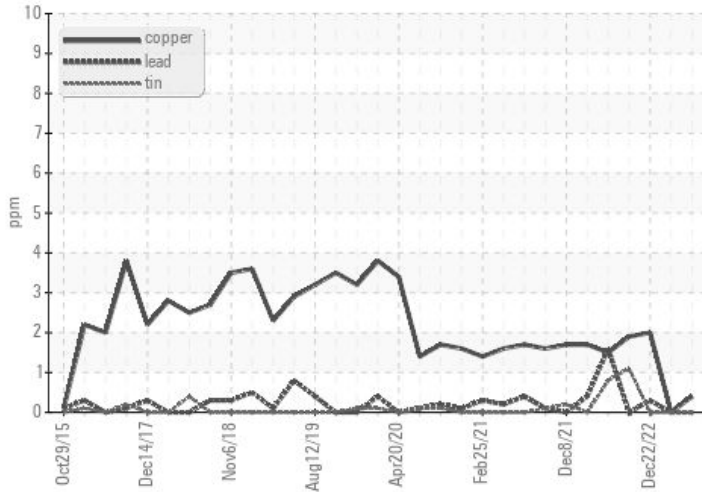


GRAPHS

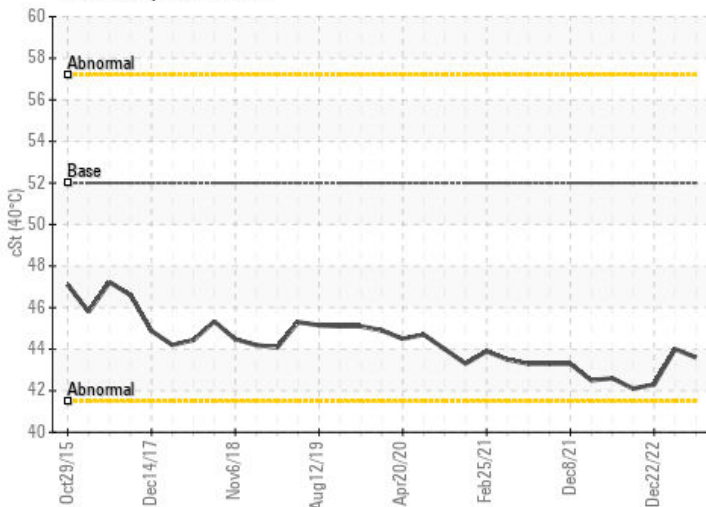
Ferrous Alloys



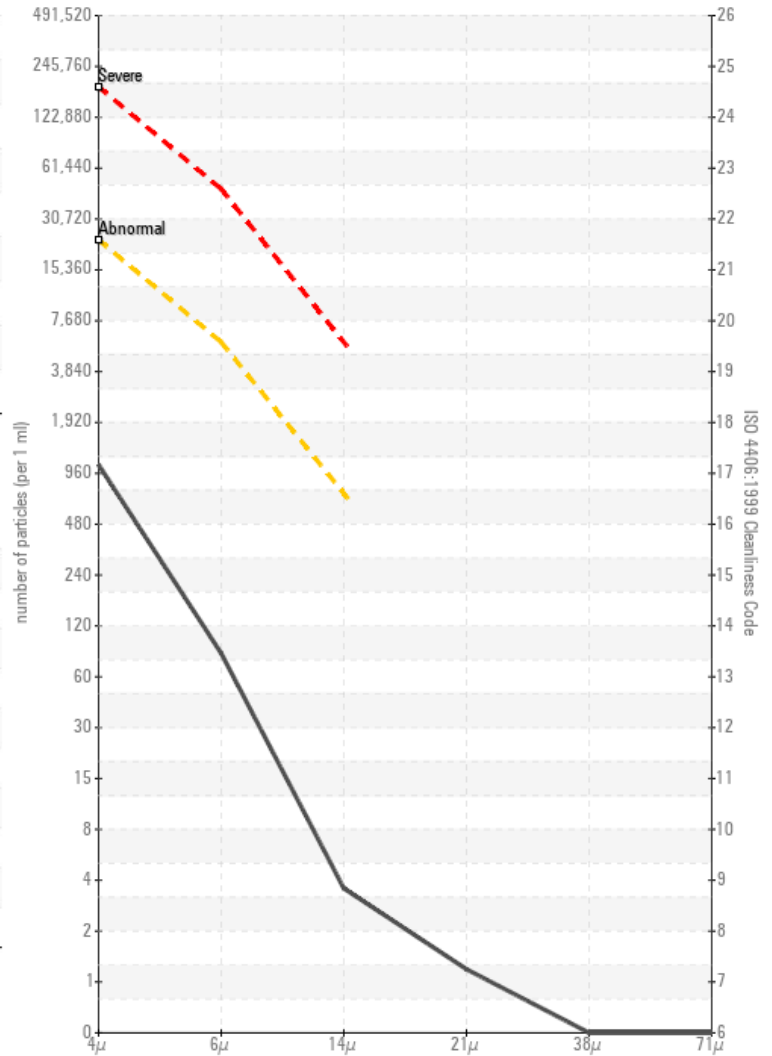
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Acid Number

