LIEBHERR
CONSTRUCTION EQUIPMENT

# LIEBHERR LH30 122037 - Hydraulic System

**Sample No:** LH0258296

**Oil Type:** AW HYDRAULIC OIL ISO 46


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## SAMPLE INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| Sample Number | | **LH0258296** | --- | --- | --- |
| Sample Date | | **14 Aug 2023** | --- | --- | --- |
| Machine Hours | | **4199** | --- | --- | --- |
| Oil Hours | | **0** | --- | --- | --- |
| Oil Changed | | **Not Changd** | --- | --- | --- |
| Sample Status | | **ABNORMAL** | --- | --- | --- |

## OIL CONDITION

| | | | | | |
|---|---|---|---|---|---|
| Visc @ 40°C | cSt | **42.4** | --- | --- | --- |
| Acid Number (AN) | mg KOH/g | **1.04** | --- | --- | --- |

## CONTAMINATION

| | | | | | |
|---|---|---|---|---|---|
| Particles >4µm | | **6649** | --- | --- | --- |
| Particles >6µm | | **2449** | --- | --- | --- |
| Particles >14µm | | **269** | --- | --- | --- |
| ISO 4406:1999 (c) | | **20/18/15** | --- | --- | --- |
| Silicon | ppm | **2** | --- | --- | --- |
| Sodium | ppm | **5** | --- | --- | --- |
| Potassium | ppm | **1** | --- | --- | --- |

## WEAR METALS

| | | | | | |
|---|---|---|---|---|---|
| Iron | ppm | **90** | --- | --- | --- |
| Copper | ppm | **8** | --- | --- | --- |
| Lead | ppm | **2** | --- | --- | --- |
| Tin | ppm | **0** | --- | --- | --- |
| Aluminum | ppm | **<1** | --- | --- | --- |
| Chromium | ppm | **1** | --- | --- | --- |
| Molybdenum | ppm | **<1** | --- | --- | --- |
| Nickel | ppm | **0** | --- | --- | --- |
| Titanium | ppm | **0** | --- | --- | --- |
| Silver | ppm | **0** | --- | --- | --- |
| Manganese | ppm | **1** | --- | --- | --- |
| Vanadium | ppm | **0** | --- | --- | --- |

## ADDITIVES

| | | | | | |
|---|---|---|---|---|---|
| Calcium | ppm | **1404** | --- | --- | --- |
| Magnesium | ppm | **6** | --- | --- | --- |
| Zinc | ppm | **737** | --- | --- | --- |
| Phosphorus | ppm | **582** | --- | --- | --- |
| Barium | ppm | **0** | --- | --- | --- |
| Boron | ppm | **0** | --- | --- | --- |

## Diagnosis

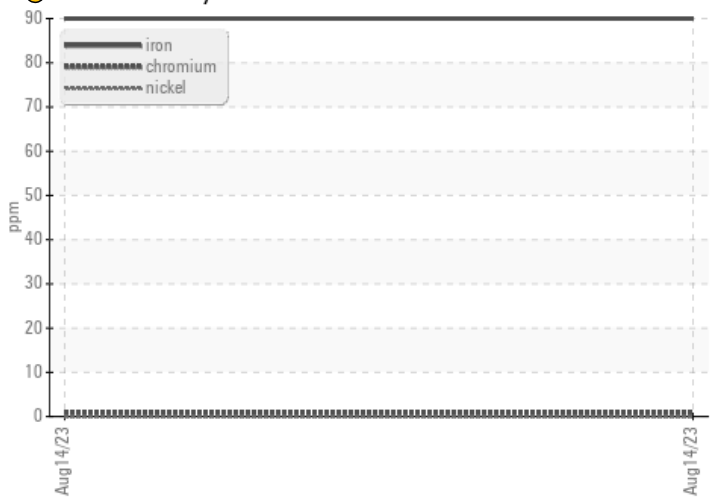
The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.The iron level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

**Depot:** LEC0008
**Unique No:** 10615568
**Signed:** Jonathan Hester
**Report Date:** 23 Aug 2023

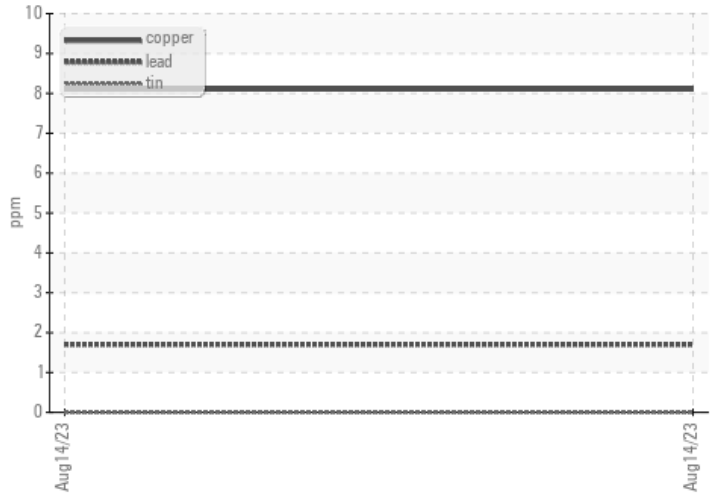
# LIEBHERR
## CONSTRUCTION EQUIPMENT


## GRAPHS

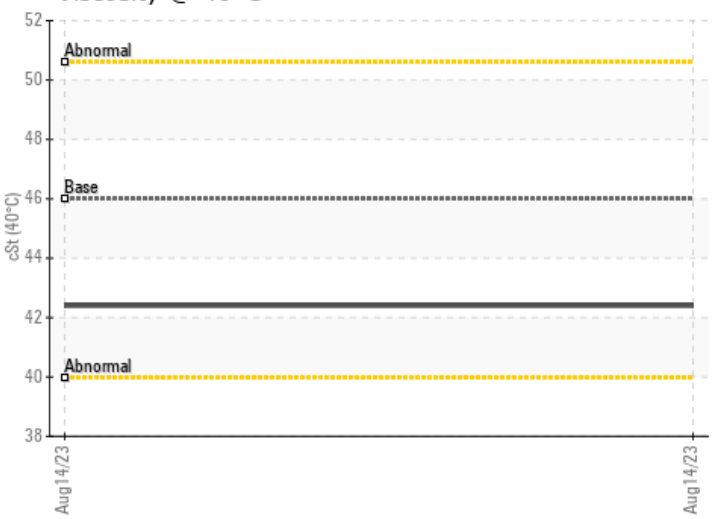
### Ferrous Alloys



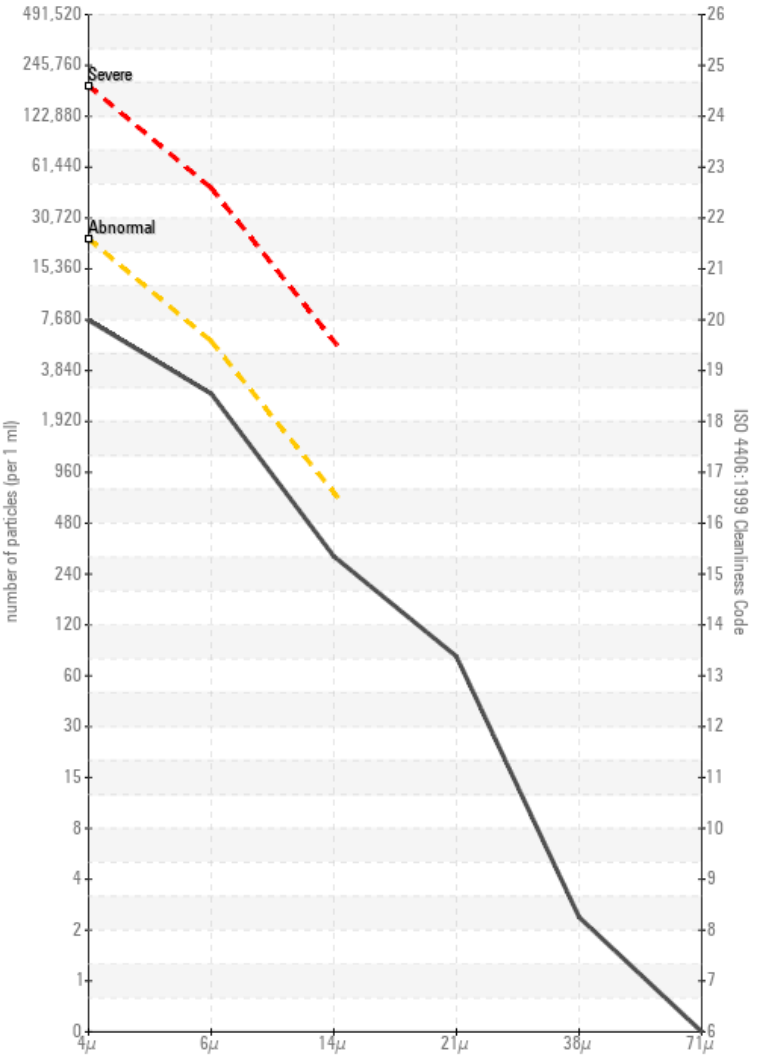

### Non-ferrous Metals




### Viscosity @ 40°C




### Particle Count




### Acid Number