

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR R930 056356-1716 - Hydraulic System

Sample No: LH0258969

Oil Type: LIEBHERR HYDRAULIC HVI



#### SAMPLE INFORMATION

|               |             |             |     |     |
|---------------|-------------|-------------|-----|-----|
| Sample Number | LH0258969   | LH0258226   | --- | --- |
| Sample Date   | 10 Oct 2023 | 22 May 2023 | --- | --- |
| Machine Hours | 1035        | 475         | --- | --- |
| Oil Hours     | 0           | 0           | --- | --- |
| Oil Changed   | Not Chngd   | Not Chngd   | --- | --- |
| Sample Status | ATTENTION   | NORMAL      | --- | --- |

ACECO

10119 RESIDENCY ROAD

MANASSAS, VA

US 20110

Contact: RON BROCK



#### OIL CONDITION

|                  |          |        |        |     |     |
|------------------|----------|--------|--------|-----|-----|
| Visc @ 40°C      | cSt      | ● 44.1 | ● 44.1 | --- | --- |
| Acid Number (AN) | mg KOH/g | ● 1.22 | ● 1.14 | --- | --- |

T: (703)392-0111

F: (703)331-5604



#### CONTAMINATION

|                   |     |          |          |     |     |
|-------------------|-----|----------|----------|-----|-----|
| Particles >4µm    |     | ● 31586  | ● 3061   | --- | --- |
| Particles >6µm    |     | ● 5791   | ● 509    | --- | --- |
| Particles >14µm   |     | ● 142    | ● 52     | --- | --- |
| ISO 4406:1999 (c) |     | 22/20/14 | 19/16/13 | --- | --- |
| Silicon           | ppm | ● 7      | ● 3      | --- | --- |
| Sodium            | ppm | ● 2      | ● 2      | --- | --- |
| Potassium         | ppm | ● 0      | ● 0      | --- | --- |

#### Diagnosis

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.



#### WEAR METALS

|            |     |      |      |     |     |
|------------|-----|------|------|-----|-----|
| Iron       | ppm | ● 10 | ● 8  | --- | --- |
| Copper     | ppm | ● 10 | ● 3  | --- | --- |
| Lead       | ppm | ● <1 | ● <1 | --- | --- |
| Tin        | ppm | ● 0  | ● 0  | --- | --- |
| Aluminum   | ppm | ● <1 | ● 1  | --- | --- |
| Chromium   | ppm | ● 2  | ● 0  | --- | --- |
| Molybdenum | ppm | ● 0  | ● 0  | --- | --- |
| Nickel     | ppm | ● 0  | ● 0  | --- | --- |
| Titanium   | ppm | 0    | 0    | --- | --- |
| Silver     | ppm | 0    | 0    | --- | --- |
| Manganese  | ppm | ● 0  | ● <1 | --- | --- |
| Vanadium   | ppm | 0    | <1   | --- | --- |



#### ADDITIVES

|            |     |        |        |     |     |
|------------|-----|--------|--------|-----|-----|
| Calcium    | ppm | ● 1313 | ● 1509 | --- | --- |
| Magnesium  | ppm | ● 27   | ● 0    | --- | --- |
| Zinc       | ppm | ● 676  | ● 738  | --- | --- |
| Phosphorus | ppm | ● 583  | ● 623  | --- | --- |
| Barium     | ppm | ● 0    | ● 0    | --- | --- |
| Boron      | ppm | ● 0    | ● 0    | --- | --- |

Depot: ACEMAN

Unique No: 10735965

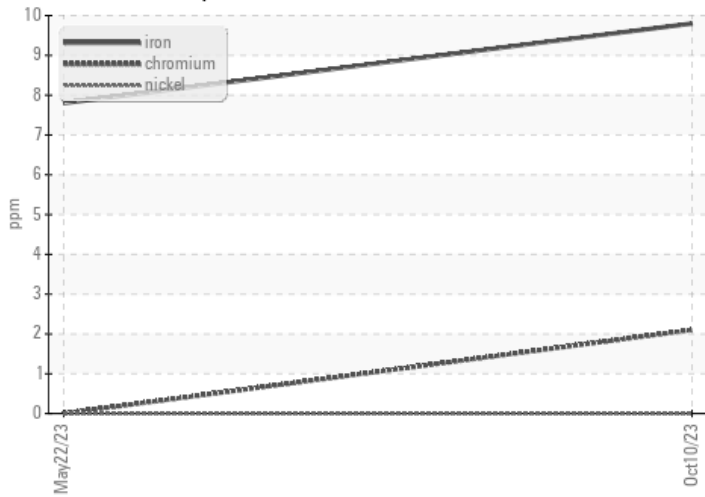
Signed: Angela Borella

Report Date: 10 Nov 2023

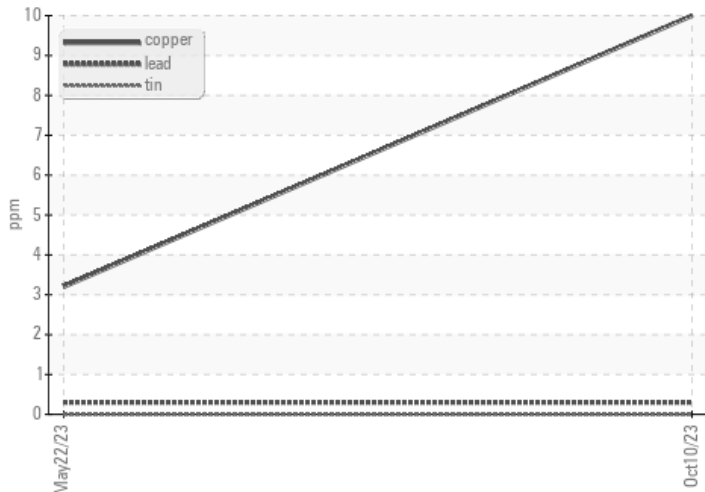


### GRAPHS

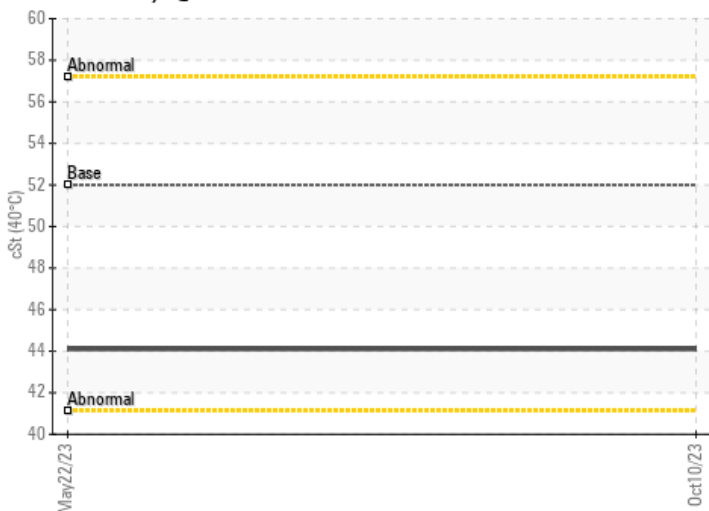
#### Ferrous Alloys



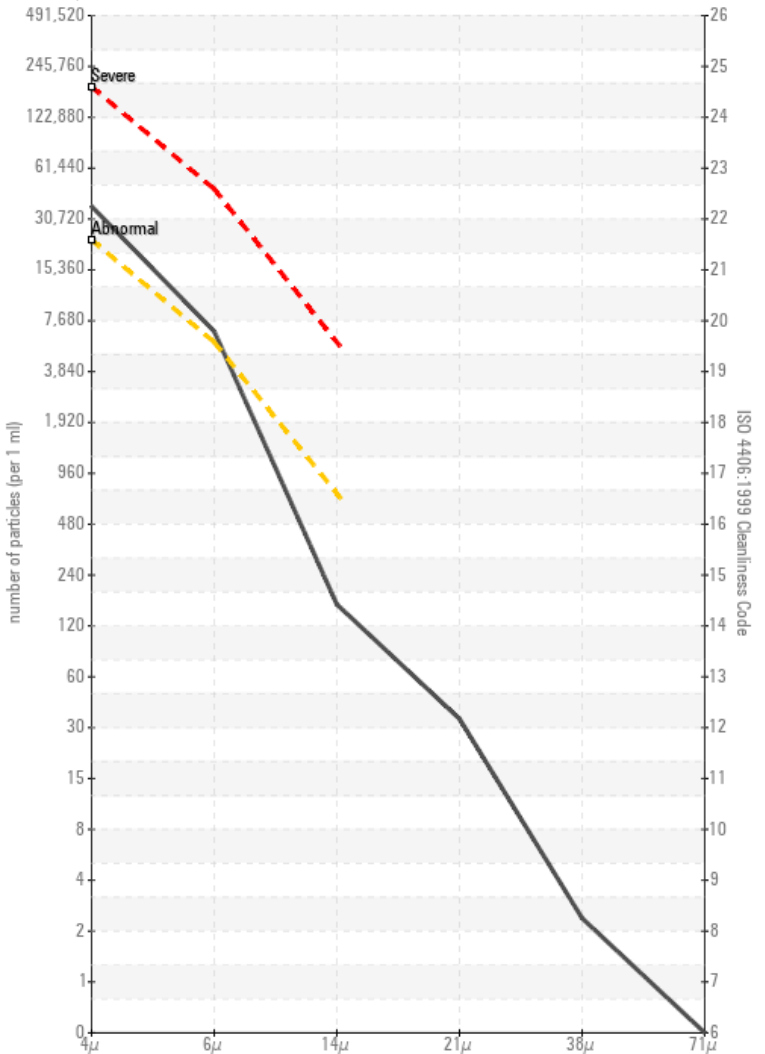
#### Non-ferrous Metals



#### Viscosity @ 40°C



#### Particle Count



#### Acid Number

