

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR LR636 018206-1275 - Right Final Drive

Sample No: LH0270253

Oil Type: GEAR OIL SAE 90W140



#### SAMPLE INFORMATION

|               |             |             |             |     |
|---------------|-------------|-------------|-------------|-----|
| Sample Number | LH0270253   | LH0195799   | LH0178615   | --- |
| Sample Date   | 18 Sep 2023 | 02 Jun 2021 | 15 Oct 2020 | --- |
| Machine Hours | 0           | 2657        | 1682        | --- |
| Oil Hours     | 0           | 0           | 0           | --- |
| Oil Changed   | N/A         | Not Changd  | Not Changd  | --- |
| Sample Status | SEVERE      | NORMAL      | NORMAL      | --- |

#### CON-DRAIN LTD.

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#### OIL CONDITION

|             |     |     |     |     |     |
|-------------|-----|-----|-----|-----|-----|
| Visc @ 40°C | cSt | 276 | 332 | 314 | --- |
|-------------|-----|-----|-----|-----|-----|



#### CONTAMINATION

|           |     |    |    |   |     |
|-----------|-----|----|----|---|-----|
| Silicon   | ppm | 39 | 12 | 3 | --- |
| Sodium    | ppm | 4  | 2  | 6 | --- |
| Potassium | ppm | 6  | 2  | 2 | --- |



#### WEAR METALS

|            |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|
| PQ         |     | 205 | --- | --- | --- |
| Iron       | ppm | 962 | 58  | 82  | --- |
| Copper     | ppm | 526 | 11  | 26  | --- |
| Lead       | ppm | 13  | <1  | 1   | --- |
| Tin        | ppm | 44  | <1  | 1   | --- |
| Aluminum   | ppm | 7   | 2   | <1  | --- |
| Chromium   | ppm | 5   | <1  | 1   | --- |
| Molybdenum | ppm | 2   | <1  | <1  | --- |
| Nickel     | ppm | 3   | <1  | <1  | --- |
| Titanium   | ppm | <1  | <1  | 0   | --- |
| Silver     | ppm | 0   | <1  | <1  | --- |
| Manganese  | ppm | 8   | <1  | 1   | --- |
| Vanadium   | ppm | 0   | 0   | 0   | --- |



#### ADDITIVES

|            |     |     |     |      |     |
|------------|-----|-----|-----|------|-----|
| Calcium    | ppm | 40  | 10  | 21   | --- |
| Magnesium  | ppm | 12  | 2   | 3    | --- |
| Zinc       | ppm | 132 | 12  | 25   | --- |
| Phosphorus | ppm | 866 | 931 | 1122 | --- |
| Barium     | ppm | 4   | 1   | 77   | --- |
| Boron      | ppm | 130 | 236 | 2    | --- |

#### Diagnosis

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Copper and tin ppm levels are severe. Lead and iron ppm levels are abnormal. Bearing and/or bushing wear is indicated. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. There is no indication of any contamination in the oil. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: CON30CON  
 Unique No: 5644706  
 Signed: Bill Quesnel  
 Report Date: 20 Sep 2023



### GRAPHS

