LIEBHERR

CONSTRUCTION EQUIPMENT



Sample No: LH0279052

Oil Type: LIEBHERR GEAR BASIC 90 LS

| SAMPLE INFORMATION | | | | | | | |
|--------------------|-------------|-------------|-------------|-------------|--|--|--|
| Sample Number | LH0279052 | LH0261009 | LH0250801 | LH0235315 | | | |
| Sample Date | 22 Jan 2024 | 15 Jun 2023 | 03 Feb 2023 | 14 Sep 2022 | | | |
| Machine Hours | 5982 | 4922 | 4136 | 3114 | | | |
| Oil Hours | 0 | 0 | 0 | 0 | | | |
| Oil Changed | Changed | Changed | Changed | Changed | | | |
| Sample Status | ABNORMAL | NORMAL | NORMAL | NORMAL | | | |
| | | | | | | | |



| CONT | AMINATI | ON | | | |
|-----------|---------|--------------|----------|----------|----------|
| Water | % | NEG | NEG | NEG | NEG |
| Silicon | ppm | 3 | 4 | 6 | 08 |
| Sodium | ppm | ○ <1 | O <1 | O 2 | 3 |
| Potassium | ppm | () <1 | 0 | O 0 | O 0 |

| WEA | AR METAI | LS | | | |
|------------|----------|-------------|------------|----------|----------|
| Iron | ppm | 86 | 6 5 | O 146 | O 121 |
| Copper | ppm | 26 | 36 | O 62 | 98 |
| Lead | ppm | <1 | O <1 | 1 | O 2 |
| Tin | ppm | 2 | 3 | 3 | 4 |
| Aluminum | ppm | <1 | O <1 | O <1 | O <1 |
| Chromium | ppm | ○ <1 | O <1 | O <1 | O <1 |
| Molybdenum | ppm | 0 | O 0 | 0 | O 0 |
| Nickel | ppm | ○ <1 | O <1 | 1 | O 1 |
| Titanium | ppm | 0 | 0 | 0 | 0 |
| Silver | ppm | <1 | 0 | 0 | 0 |
| Manganese | ppm | 1 | O 2 | 5 | 7 |
| Vanadium | ppm | 0 | 0 | 0 | 0 |

| vanadium ppm 0 0 0 | |
|---|-----|
| | |
| ADDITIVES | |
| Calcium ppm Q 4 Q 2 26 | 6 |
| Magnesium ppm ○ <1 ○ 0 | |
| Zinc ppm Q 14 Q 15 Q 15 | 1 |
| Phosphorus ppm Q 2294 Q 2378 Q 2477 Q 2 3 | 379 |
| Barium ppm ○ 0 ○ 0 | |
| Boron ppm | |



ARMAND DUHAMEL et FILS INC. 778 RUE DE L'EGLISE ST-IGNACE-STANDBRIDGE, QC CA J0J 1Y0 Contact:

T: F:

Diagnosis

We advise that you check for visible metal particles in the oil. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Moderate concentration of visible metal present. Bearing and/or bushing wear is indicated. Gear wear is indicated. 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.

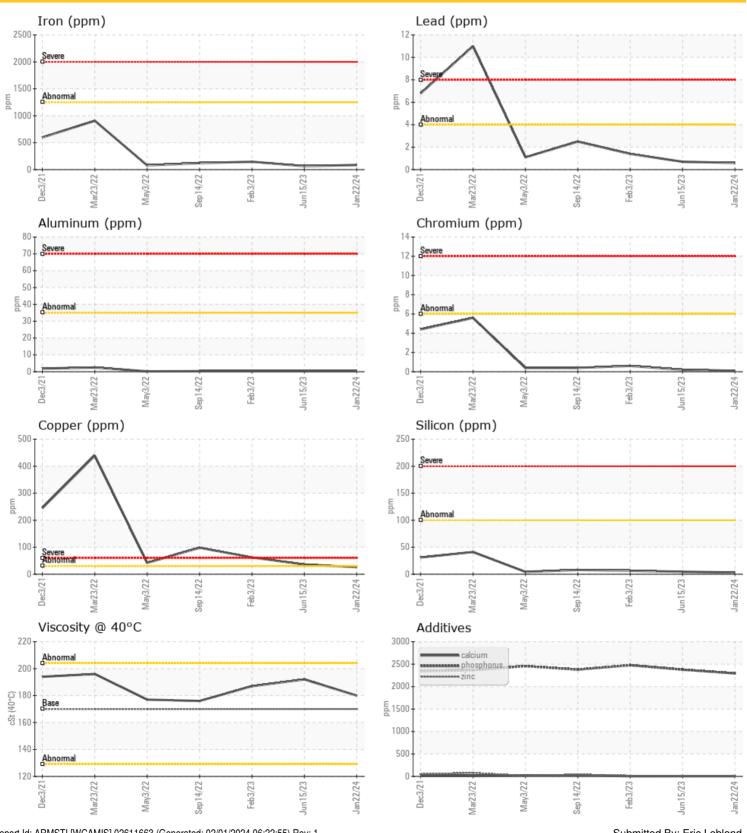
Depot: ARMSTI
Unique No: 5720758
Signed: Bill Quesnel
Report Date: 30 Jan 2024

CONSTRUCTION EQUIPMENT





GRAPHS



Report Id: ARMSTI [WCAMIS] 02611663 (Generated: 02/01/2024 06:22:55) Rev: 1

Submitted By: Eric Leblond