



LIEBHERR

OIL ANALYSIS REPORT

| | |
|-----------------|---------------|
| WEAR | NORMAL |
| CONTAMINATION | NORMAL |
| FLUID CONDITION | NORMAL |



Area
(335553)
Machine Id
LIEBHERR T60-9s 021026-1709
Component
Rear Differential
Fluid
LIEBHERR GEAR BASIC 90 LS (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill.
Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | LH0274063 | LH0769852 | LH |
| Sample Date | | Client Info | | 29 Jun 2023 | 18 May 2023 | 27 Apr 2021 |
| Machine Age | hrs | Client Info | | 1000 | 2330 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Filter Changed | | Client Info | | Changed | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|---------------|-------|--------------|------|------|
| Iron | ppm | ASTM D5185(m) | >1250 | 8 | 6 | 59 |
| Chromium | ppm | ASTM D5185(m) | >6 | 0 | 0 | <1 |
| Nickel | ppm | ASTM D5185(m) | >4 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | | 0 | <1 | <1 |
| Silver | ppm | ASTM D5185(m) | | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185(m) | >35 | <1 | 1 | <1 |
| Lead | ppm | ASTM D5185(m) | >4 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185(m) | >30 | <1 | <1 | <1 |
| Tin | ppm | ASTM D5185(m) | >4 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| White Metal | scalar | Visual* | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | Visual* | NONE | NONE | NONE | NONE |

CONTAMINATION

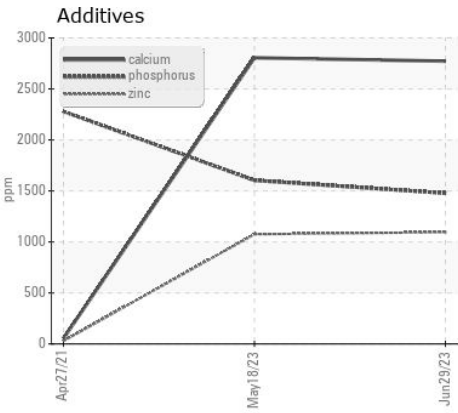
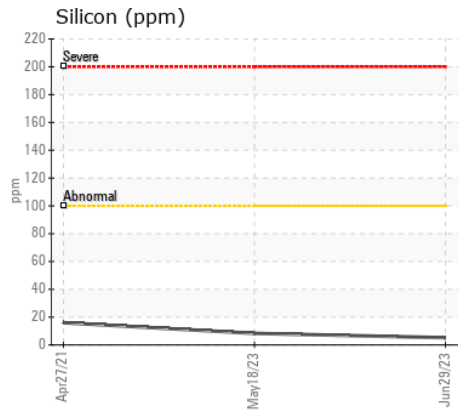
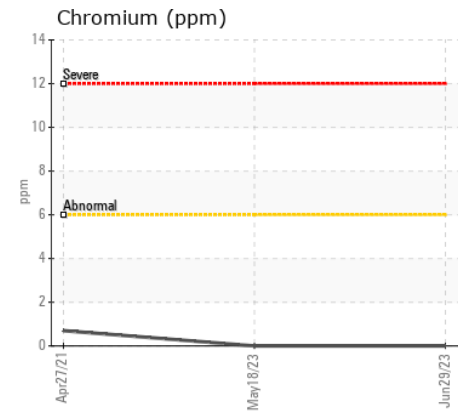
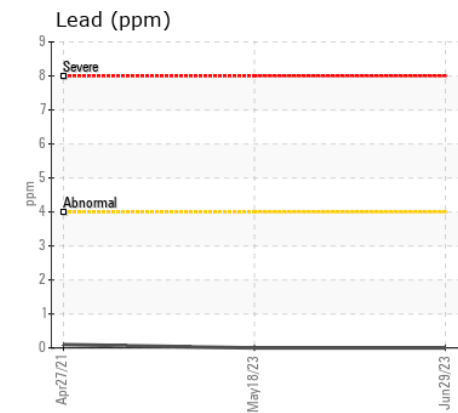
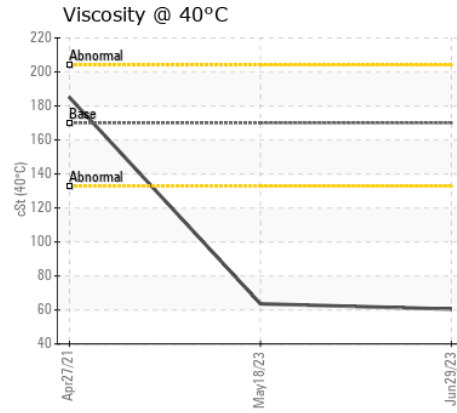
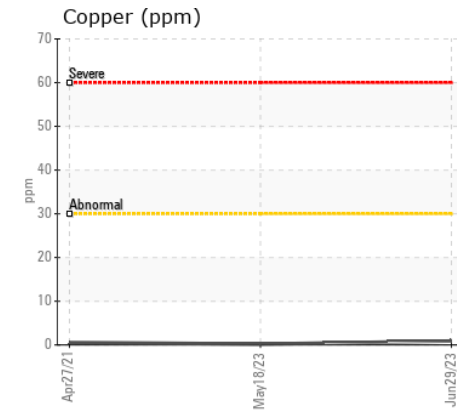
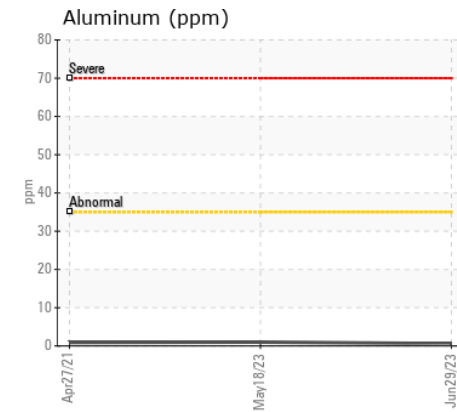
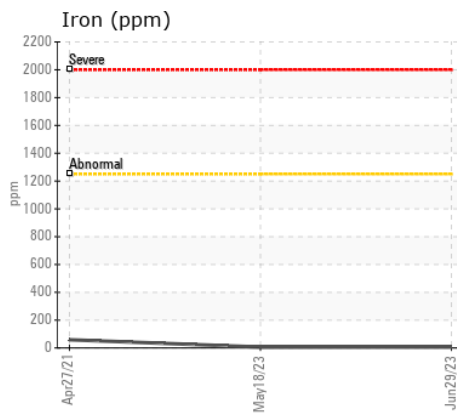
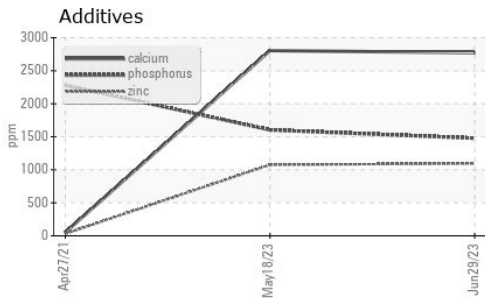
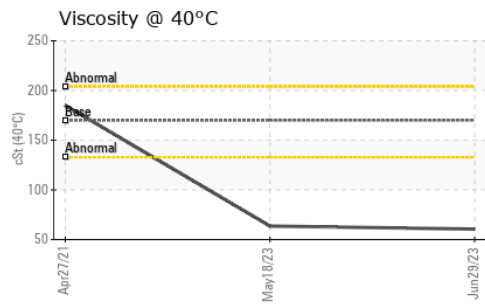
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|--------|---------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185(m) | >100 | 5 | 8 | 16 |
| Potassium | ppm | ASTM D5185(m) | >20 | <1 | <1 | 1 |
| Water | | WC Method | >.2 | NEG | NEG | NEG |
| Silt | scalar | Visual* | NONE | NONE | NONE | NONE |
| Debris | scalar | Visual* | NONE | VLITE | NONE | NONE |
| Sand/Dirt | scalar | Visual* | NONE | NONE | NONE | NONE |
| Appearance | scalar | Visual* | NORML | NORML | NORML | NORML |
| Odor | scalar | Visual* | NORML | NORML | NORML | NORML |
| Emulsified Water | scalar | Visual* | >.2 | NEG | NEG | NEG |

FLUID CONDITION

Additive levels indicate the addition of a different brand, or type of oil.
The condition of the oil is acceptable for the time in service.

| | | | | | | |
|-------------|-----|---------------|-------|--------------|------|-------|
| Sodium | ppm | ASTM D5185(m) | | <1 | <1 | 6 |
| Boron | ppm | ASTM D5185(m) | 0 | 75 | 79 | 2 |
| Barium | ppm | ASTM D5185(m) | 0 | 0 | 0 | 2 |
| Molybdenum | ppm | ASTM D5185(m) | 0 | 0 | <1 | 5 |
| Manganese | ppm | ASTM D5185(m) | 0 | 1 | 1 | 15 |
| Magnesium | ppm | ASTM D5185(m) | <1 | 10 | 13 | 4 |
| Calcium | ppm | ASTM D5185(m) | <1 | 2772 | 2805 | 54 |
| Phosphorus | ppm | ASTM D5185(m) | 2143 | 1478 | 1604 | 2279 |
| Zinc | ppm | ASTM D5185(m) | <1 | 1095 | 1075 | 30 |
| Sulfur | ppm | ASTM D5185(m) | 23468 | 9080 | 9063 | 33687 |
| Visc @ 40°C | cSt | ASTM D7279(m) | 170 | 60.5 | 63.6 | 185 |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0274063 **Received** : 31 May 2024
Lab Number : 02639235 **Tested** : 31 May 2024
Unique Number : 5788397 **Diagnosed** : 31 May 2024 - Wes Davis
Test Package : MOB 1

9168-3094 QC INC.
 379 DU COLLEGE
 St Donat de Montcalm, QC
 CA J0T 2C0
 Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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F: