



LIEBHERR

OIL ANALYSIS REPORT

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



Machine Id
LIEBHERR A934C 057446-1007
Component
Rear Differential
Fluid
KLONDIKE FULL SYNTHETIC 75W90 (40 LTR)

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 | | LH0281187 | LH0192473 | LH0177441 |
| Sample Date | | Client Info | | 22 Jan 2024 | 02 Dec 2022 | 19 Feb 2021 |
| Machine Age | hrs | Client Info | | 26482 | 25052 | 23033 |
| 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 | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | NORMAL |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|---------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185(m) | >190 | 8 | 9 | 4 |
| Chromium | ppm | ASTM D5185(m) | >2 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185(m) | >2 | 0 | 0 | <1 |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185(m) | >5 | <1 | <1 | <1 |
| Lead | ppm | ASTM D5185(m) | >15 | <1 | <1 | 0 |
| Copper | ppm | ASTM D5185(m) | >70 | 6 | 5 | 4 |
| Tin | ppm | ASTM D5185(m) | >2 | 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

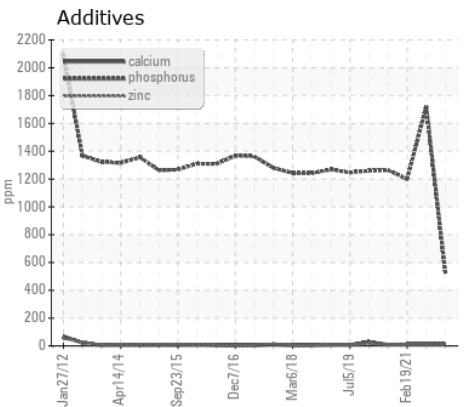
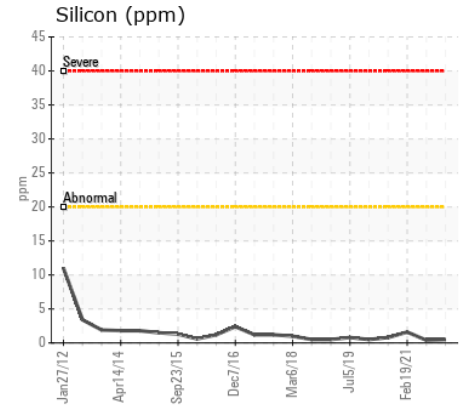
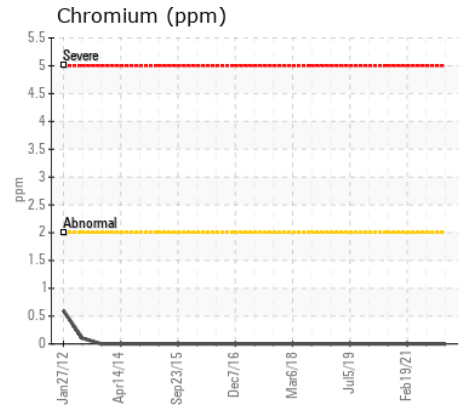
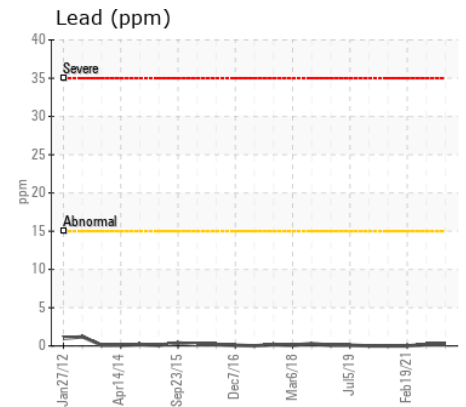
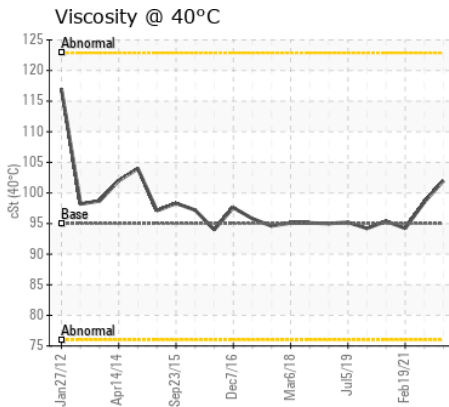
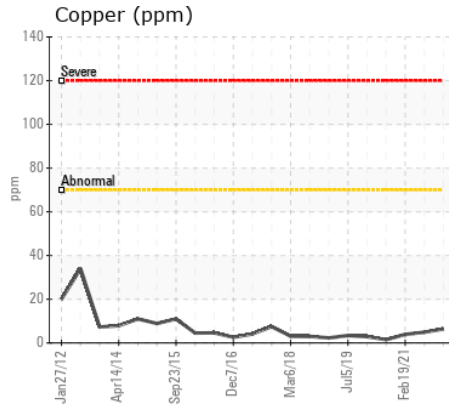
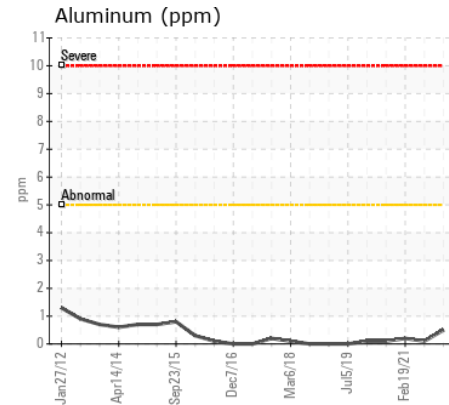
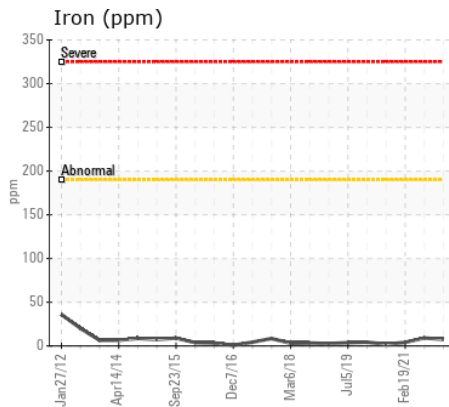
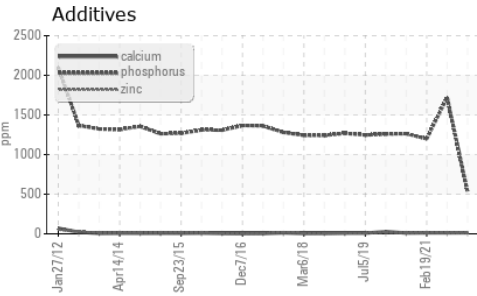
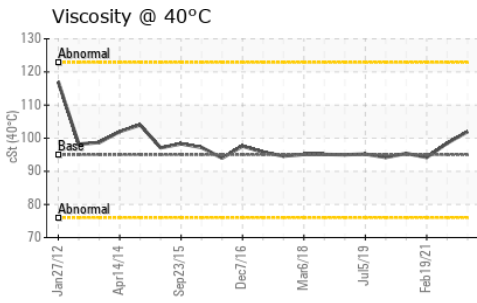
There is no indication of any contamination in the oil.

| | | | | | | |
|------------------|--------|---------------|-------|--------------|-------|-------|
| Silicon | ppm | ASTM D5185(m) | >20 | <1 | <1 | 2 |
| 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 | NONE | 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) | | 0 | 1 | <1 |
| Boron | ppm | ASTM D5185(m) | | 31 | 195 | 302 |
| Barium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | | 0 | <1 | <1 |
| Magnesium | ppm | ASTM D5185(m) | | 3 | <1 | 1 |
| Calcium | ppm | ASTM D5185(m) | | 13 | 12 | 12 |
| Phosphorus | ppm | ASTM D5185(m) | | 527 | 1720 | 1199 |
| Zinc | ppm | ASTM D5185(m) | | 10 | 10 | 9 |
| Sulfur | ppm | ASTM D5185(m) | | 16938 | 22608 | 20499 |
| Visc @ 40°C | cSt | ASTM D7279(m) | 95 | 102 | 98.5 | 94.2 |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0281187
Lab Number : 02616324
Unique Number : 5733434
Test Package : MOB 1
Received : 16 Feb 2024
Tested : 16 Feb 2024
Diagnosed : 16 Feb 2024 - Wes Davis

ABC RECYCLING
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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.