



LIEBHERR

OIL ANALYSIS REPORT

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



Area
(352940)
Machine Id
LIEBHERR LH40M 123939-1215
Component
Hydraulic System
Fluid
{not provided} (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | LH0286705 | LH0251516 | LH0227268 |
| Sample Date | | Client Info | | 16 Apr 2024 | 20 Jan 2023 | 28 Mar 2022 |
| Machine Age | hrs | Client Info | | 2235 | 975 | 402 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Not Changd | Not Changd | Not Changd |
| 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) | >60 | 10 | 7 | 6 |
| Chromium | ppm | ASTM D5185(m) | >40 | <1 | 0 | <1 |
| Nickel | ppm | ASTM D5185(m) | >10 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185(m) | | 0 | <1 | 0 |
| Aluminum | ppm | ASTM D5185(m) | >5 | <1 | <1 | <1 |
| Lead | ppm | ASTM D5185(m) | >5 | 2 | <1 | <1 |
| Copper | ppm | ASTM D5185(m) | >15 | 4 | 3 | 2 |
| Tin | ppm | ASTM D5185(m) | >5 | 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

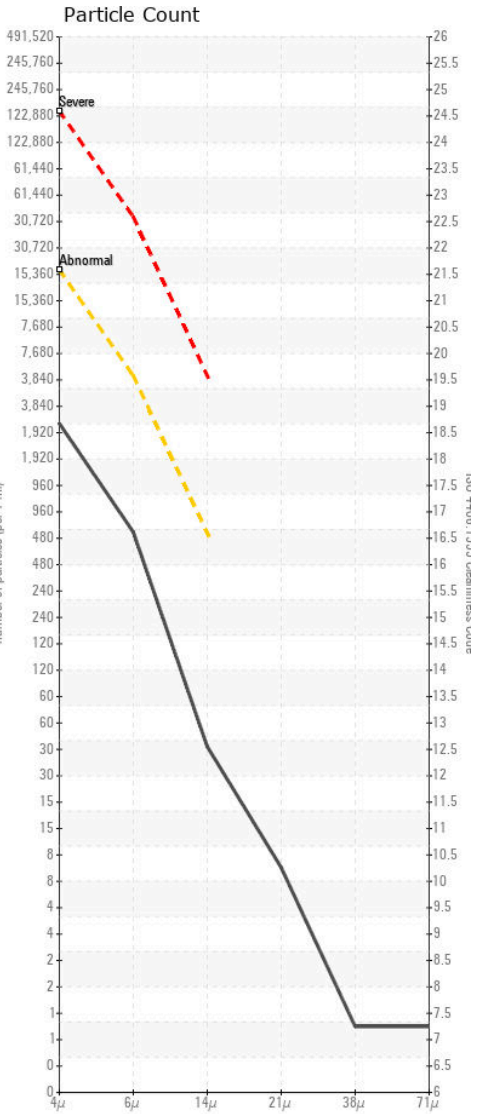
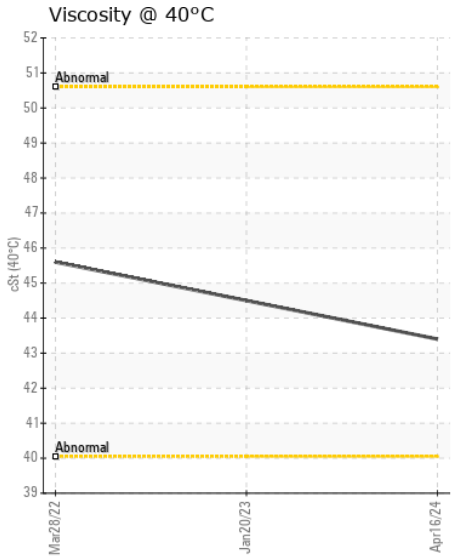
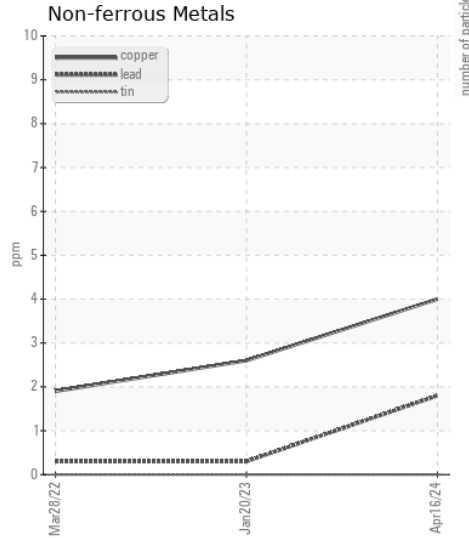
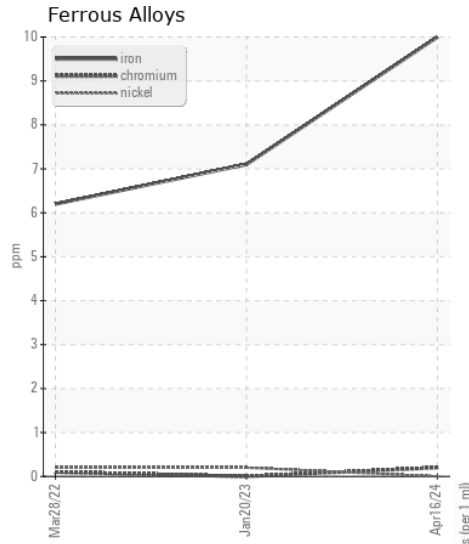
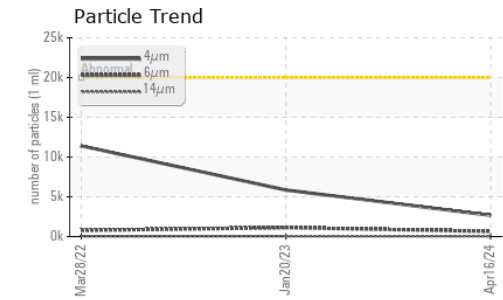
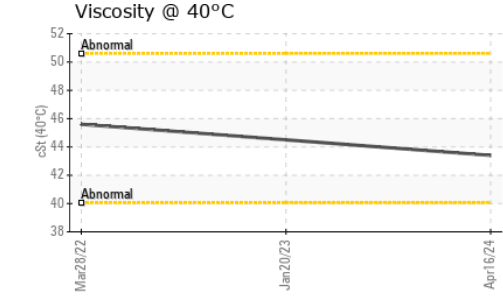
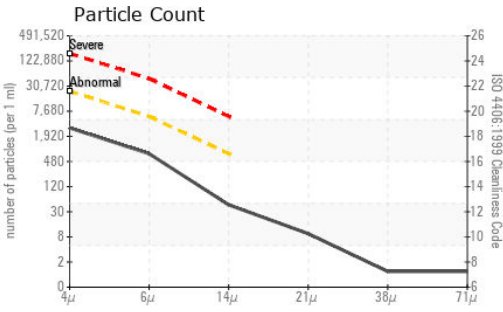
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

| | | | | | | |
|------------------|--------|---------------|-----------|-----------------|----------|----------|
| Silicon | ppm | ASTM D5185(m) | >15 | 0 | 1 | 1 |
| Potassium | ppm | ASTM D5185(m) | >20 | 1 | 1 | 1 |
| Water | | WC Method | >0.1 | NEG | NEG | NEG |
| Particles >4µm | | ASTM D7647 | >20000 | 2677 | 5857 | 11406 |
| Particles >6µm | | ASTM D7647 | >5000 | 646 | 1126 | 773 |
| Particles >14µm | | ASTM D7647 | >640 | 39 | 36 | 33 |
| Particles >21µm | | ASTM D7647 | >160 | 8 | 11 | 5 |
| Particles >38µm | | ASTM D7647 | >40 | 1 | 1 | 0 |
| Particles >71µm | | ASTM D7647 | >10 | 1 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >21/19/16 | 19/17/12 | 20/17/12 | 21/17/12 |
| 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* | >0.1 | NEG | NEG | NEG |

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

| | | | | | | |
|-------------|-----|---------------|--|--------------|------|------|
| Sodium | ppm | ASTM D5185(m) | | 3 | 1 | <1 |
| Boron | ppm | ASTM D5185(m) | | 2 | <1 | <1 |
| Barium | ppm | ASTM D5185(m) | | <1 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185(m) | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185(m) | | <1 | <1 | 0 |
| Magnesium | ppm | ASTM D5185(m) | | 5 | 5 | 6 |
| Calcium | ppm | ASTM D5185(m) | | 1194 | 1217 | 1276 |
| Phosphorus | ppm | ASTM D5185(m) | | 588 | 635 | 630 |
| Zinc | ppm | ASTM D5185(m) | | 679 | 677 | 692 |
| Sulfur | ppm | ASTM D5185(m) | | 3553 | 3469 | 3590 |
| Visc @ 40°C | cSt | ASTM D7279(m) | | 43.4 | 44.5 | 45.6 |



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0286705 **Received** : 17 Apr 2024
Lab Number : 02629766 **Tested** : 18 Apr 2024
Unique Number : 5762898 **Diagnosed** : 18 Apr 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: PrtCount)

PORT PERRY SALVAGE
 132 REACH INDUSTRIAL PARK
 PORT PERRY, ON
 CA L9L 1B2
 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.

T:
F: