



OIL ANALYSIS REPORT

| | |
|-----------------|-----------------|
| WEAR | ABNORMAL |
| CONTAMINATION | MARGINAL |
| FLUID CONDITION | NORMAL |

Machine Id
821HP01-C
Component
Reservoir Hydraulic System
Fluid
KLUBER SUMMIT HYSYN FR 46 (--- GAL)

RECOMMENDATION

The filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of metal. We recommend an early resample to monitor this condition. We were unable to perform a particle count due to metal particles present in this sample.

WEAR

Moderate concentration of visible metal present. All component wear rates are normal.

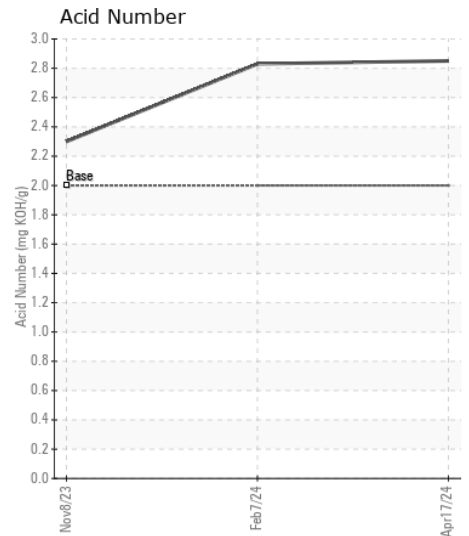
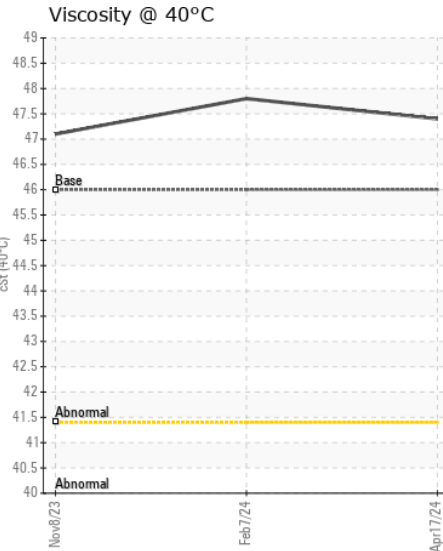
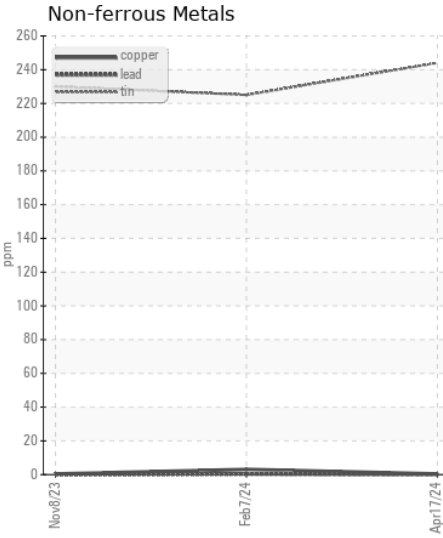
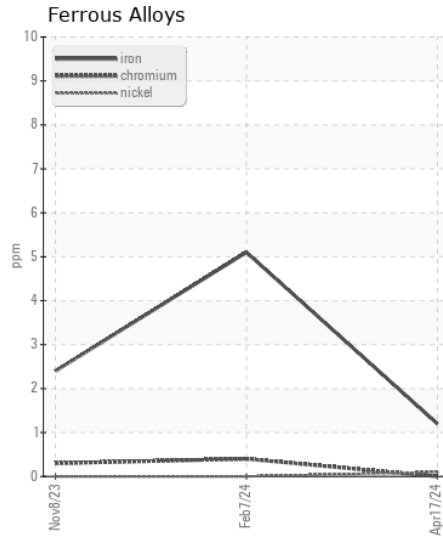
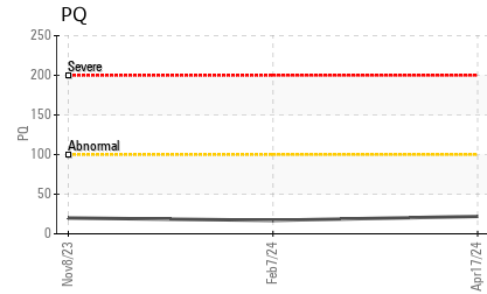
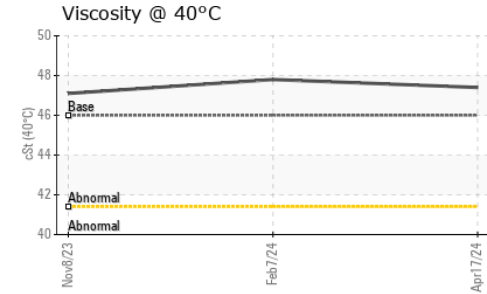
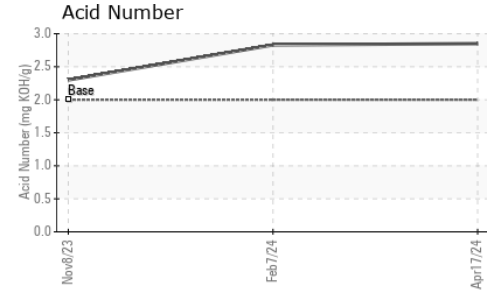
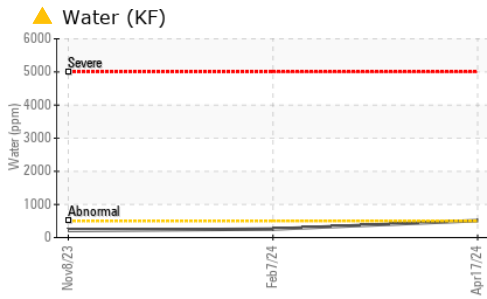
CONTAMINATION

There is a trace of moisture present in the oil.

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|------------------|----------|--------------|-----------|--------------------|-------------------|-------------------|
| Sample Number | | Client Info | | WC0806876 | WC0773253 | WC0842378 |
| Sample Date | | Client Info | | 17 Apr 2024 | 07 Feb 2024 | 08 Nov 2023 |
| Machine Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| Oil Changed | | Client Info | | Not Changed | Not Changed | Not Changed |
| Filter Changed | | Client Info | | Changed | Not Changed | Not Changed |
| Sample Status | | | | ABNORMAL | ABNORMAL | ABNORMAL |
| PQ | | ASTM D8184 | | 22 | 17 | 20 |
| Iron | ppm | ASTM D5185m | >20 | 1 | 5 | 2 |
| Chromium | ppm | ASTM D5185m | >20 | 0 | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >20 | <1 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >20 | <1 | 1 | 2 |
| Lead | ppm | ASTM D5185m | >20 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m | >20 | <1 | 3 | <1 |
| Tin | ppm | ASTM D5185m | >20 | 244 | 225 | 230 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| White Metal | scalar | *Visual | NONE | ▲ MODER | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Silicon | ppm | ASTM D5185m | >15 | 6 | 6 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | <1 | 1 |
| Water | % | ASTM D6304 | >0.05 | ▲ 0.051 | 0.025 | 0.021 |
| ppm Water | ppm | ASTM D6304 | >500 | ▲ 513 | 257 | 216 |
| Particles >4µm | | ASTM D7647 | >640 | --- | ▲ 24955 | ▲ 35061 |
| Particles >6µm | | ASTM D7647 | >160 | --- | ▲ 8830 | ▲ 10890 |
| Particles >14µm | | ASTM D7647 | >20 | --- | ▲ 367 | ▲ 442 |
| Particles >21µm | | ASTM D7647 | >4 | --- | ▲ 62 | ▲ 81 |
| Particles >38µm | | ASTM D7647 | >3 | --- | 2 | 2 |
| Particles >71µm | | ASTM D7647 | >3 | --- | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >16/14/11 | --- | ▲ 22/20/16 | ▲ 22/21/16 |
| 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 | >0.05 | NEG | NEG | NEG |
| Sodium | ppm | ASTM D5185m | | 2 | 2 | 0 |
| Boron | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 5 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Calcium | ppm | ASTM D5185m | | 0 | 51 | 0 |
| Phosphorus | ppm | ASTM D5185m | | 173 | 213 | 185 |
| Zinc | ppm | ASTM D5185m | | 30 | 34 | 13 |
| Sulfur | ppm | ASTM D5185m | | 862 | 680 | 762 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 2.0 | 2.85 | 2.83 | 2.30 |
| Visc @ 40°C | cSt | ASTM D445 | 46 | 47.4 | 47.8 | 47.1 |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : WC0806876

Lab Number : 06218233

Unique Number : 11096430

Test Package : IND 2 (Additional Tests: KF, PQ)

Received : 24 Jun 2024

Tested : 26 Jun 2024

Diagnosed : 26 Jun 2024 - Don Baldrige

ARAUCO FLAKEBOARD - MDF

985 CORINTH RD

MONCURE, NC

US

Contact: CHRISTOPHER JACKSON

christopher.jackson@arauco.com

T:

F:

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)