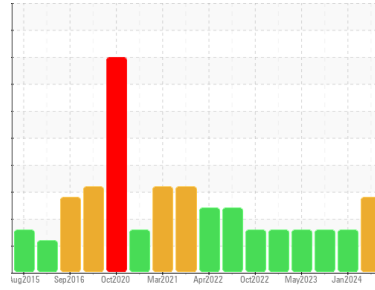




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
LADIG
 Machine Id
2070 PP01
 Component
Hydraulic System
 Fluid
KLUBER SUMMIT HYSYN FG 46 (40 GAL)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

▲ Wear

The iron level is abnormal. The copper level is abnormal.

● Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

| | method | limit/base | current | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | WC0773263 | WC0773248 | WC0668046 |
| Sample Date | Client Info | | 26 Apr 2024 | 29 Jan 2024 | 25 Jul 2023 |
| Machine Age | hrs | Client Info | 0 | 0 | 0 |
| Oil Age | hrs | Client Info | 0 | 0 | 0 |
| Oil Changed | Client Info | | Not Changed | Not Changed | Not Changed |
| Sample Status | | | ABNORMAL | ABNORMAL | ABNORMAL |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|------------|-----------------|--------------|----------|----------|
| PQ | ASTM D8184 | | 106 | 116 | 82 |
| Iron | ppm | ASTM D5185m >20 | ▲ 160 | ▲ 158 | ▲ 158 |
| Chromium | ppm | ASTM D5185m >20 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m >20 | <1 | <1 | <1 |
| Titanium | ppm | ASTM D5185m | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >20 | 0 | 1 | <1 |
| Lead | ppm | ASTM D5185m >20 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m >20 | ▲ 145 | ▲ 135 | ▲ 129 |
| Tin | ppm | ASTM D5185m >20 | 0 | 4 | 0 |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | <1 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| | method | limit/base | current | history1 | history2 |
|------------|--------|-------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 2 | <1 | 0 |
| Barium | ppm | ASTM D5185m | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | 2 | <1 | 1 |
| Magnesium | ppm | ASTM D5185m | <1 | 1 | 2 |
| Calcium | ppm | ASTM D5185m | 180 | 142 | 161 |
| Phosphorus | ppm | ASTM D5185m | 602 | 511 | 559 |
| Zinc | ppm | ASTM D5185m | 262 | 236 | 250 |
| Sulfur | ppm | ASTM D5185m | 4164 | 3216 | 3997 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >15 | 2 | 3 | <1 |
| Sodium | ppm | ASTM D5185m | 4 | 2 | 3 |
| Potassium | ppm | ASTM D5185m >20 | 2 | <1 | 0 |
| Water | % | ASTM D6304 >0.05 | 0.007 | 0.002 | 0.006 |
| ppm Water | ppm | ASTM D6304 >500 | 77 | 19 | 68.8 |

FLUID CLEANLINESS

| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-------------------|----------|----------|
| Particles >4µm | ASTM D7647 | >10000 | ● 10291 | 5204 | 1443 |
| Particles >6µm | ASTM D7647 | >2500 | ● 3706 | 951 | 92 |
| Particles >14µm | ASTM D7647 | >320 | 289 | 73 | 11 |
| Particles >21µm | ASTM D7647 | >80 | 47 | 18 | 5 |
| Particles >38µm | ASTM D7647 | >20 | 1 | 1 | 0 |
| Particles >71µm | ASTM D7647 | >4 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >20/18/15 | ● 21/19/15 | 20/17/13 | 18/14/11 |

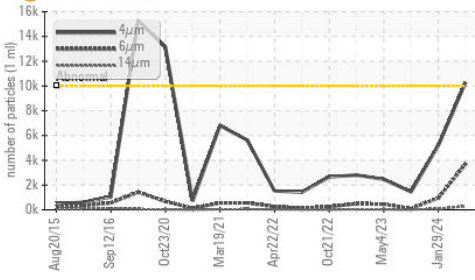
FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.32 | 0.31 | 0.30 |

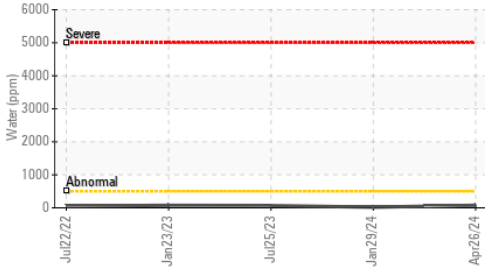


OIL ANALYSIS REPORT

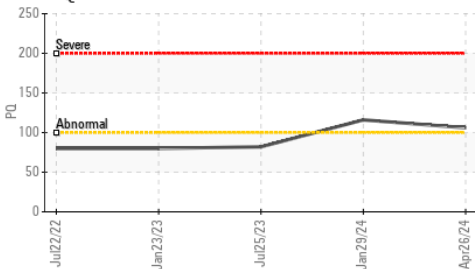
Particle Trend



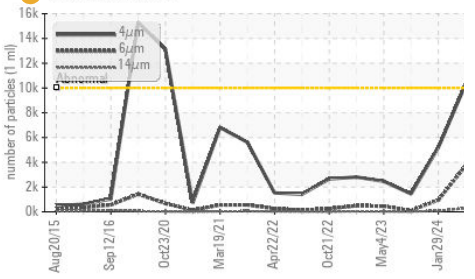
Water (KF)



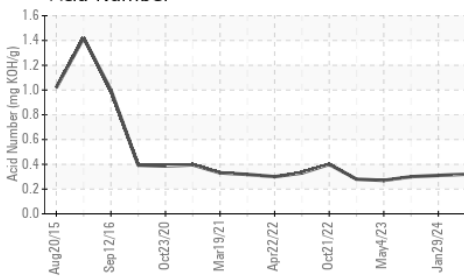
PQ



Particle Trend



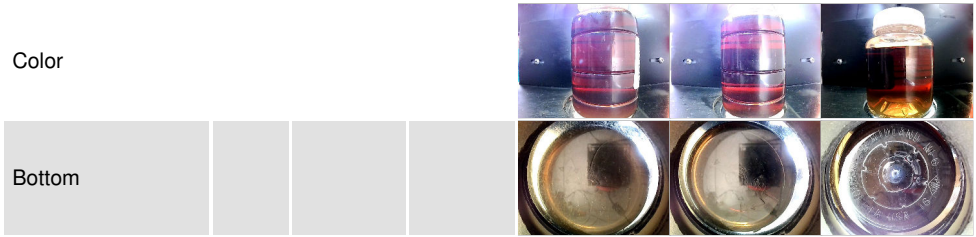
Acid Number



| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.05 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

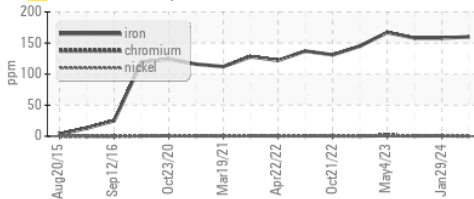
| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 46 | 45.0 | 45.4 | 44.9 |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|

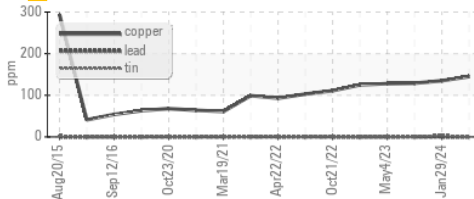


GRAPHS

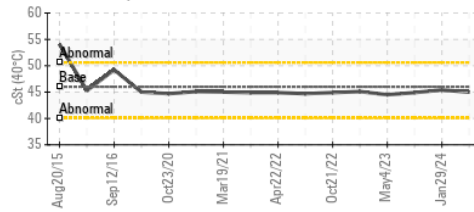
Ferrous Alloys



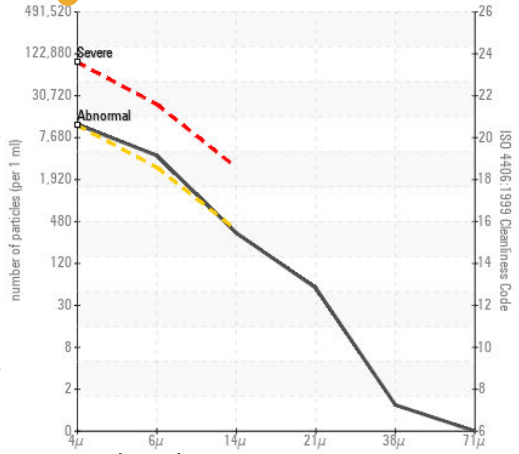
Non-ferrous Metals



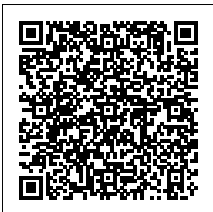
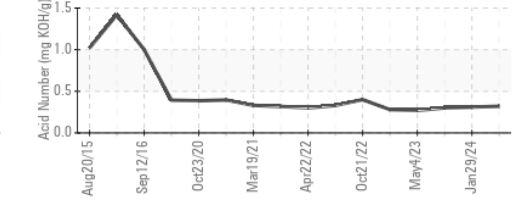
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0773263
Lab Number : 06218226
Unique Number : 11096423
Test Package : IND 2 (Additional Tests: KF, PQ)
Received : 24 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 25 Jun 2024 - Don Baldrige

ARAUCO FLAKEBOARD - MDF
 985 CORINTH RD
 MONCURE, NC
 US
 Contact: CHRISTOPHER JACKSON
 christopher.jackson@arauco.com

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)