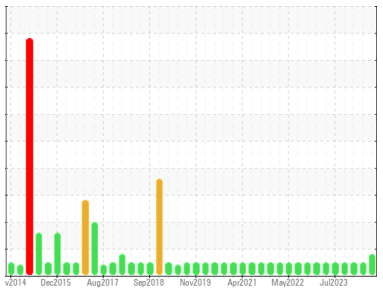
# OIL ANALYSIS REPORT

Sample Rating Trend




ISO

Area
**FIBER**
Machine Id
## FIBER BROKE CENTER PULPER 1
Component
**Gearbox**
Fluid
**GEAR OIL ISO 150 (--- GAL)**

## DIAGNOSIS

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

**Wear**
All component wear rates are normal.

**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 | | **RP0037931** | RP0030312 | RP0030545 |
| Sample Date | | Client Info | | **05 Jun 2024** | 13 Mar 2024 | 27 Dec 2023 |
| Machine Age | hrs | Client Info | | **0** | 0 | 0 |
| Oil Age | hrs | Client Info | | **0** | 0 | 0 |
| Oil Changed | | Client Info | | **N/A** | N/A | N/A |
| Sample Status | | | | **ATTENTION** | NORMAL | NORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| PQ | | ASTM D8184 | | **22** | 16 | --- |
| Iron | ppm | ASTM D5185m | >200 | **17** | 8 | 9 |
| Chromium | ppm | ASTM D5185m | >15 | **<1** | <1 | <1 |
| Nickel | ppm | ASTM D5185m | >15 | **<1** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | | **<1** | <1 | 0 |
| Silver | ppm | ASTM D5185m | | **0** | <1 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | **2** | 0 | 2 |
| Lead | ppm | ASTM D5185m | >100 | **<1** | 1 | 0 |
| Copper | ppm | ASTM D5185m | >200 | **<1** | <1 | <1 |
| Tin | ppm | ASTM D5185m | >25 | **<1** | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | **0** | <1 | 0 |
| Cadmium | ppm | ASTM D5185m | | **<1** | <1 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 50 | **22** | 16 | 17 |
| Barium | ppm | ASTM D5185m | 15 | **<1** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 15 | **<1** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **<1** | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | 50 | **1** | 0 | 1 |
| Calcium | ppm | ASTM D5185m | 50 | **3** | 3 | 6 |
| Phosphorus | ppm | ASTM D5185m | 350 | **365** | 365 | 372 |
| Zinc | ppm | ASTM D5185m | 100 | **61** | 31 | 36 |

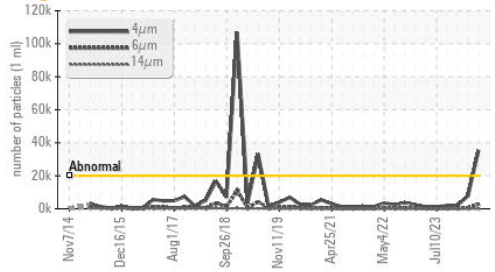
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >50 | **3** | 2 | <1 |
| Sodium | ppm | ASTM D5185m | | **<1** | 2 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | **1** | 2 | 1 |
| Water | % | ASTM D6304 | >0.2 | **0.013** | 0.013 | 0.016 |
| ppm Water | ppm | ASTM D6304 | >2000 | **139** | 136 | 164 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | >20000 | **35387** | 7939 | 2146 |
| Particles >6µm | | ASTM D7647 | >5000 | **2698** | 672 | 321 |
| Particles >14µm | | ASTM D7647 | >640 | **20** | 15 | 15 |
| Particles >21µm | | ASTM D7647 | >160 | **3** | 3 | 4 |
| Particles >38µm | | ASTM D7647 | >40 | **0** | 0 | 0 |
| Particles >71µm | | ASTM D7647 | >10 | **0** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >21/19/16 | **22/19/11** | 20/17/11 | 18/16/11 |

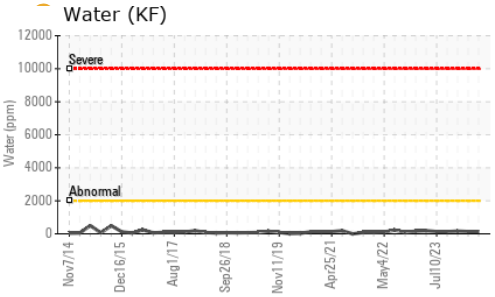
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.85 | **1.12** | 1.08 | 1.10 |

# OIL ANALYSIS REPORT

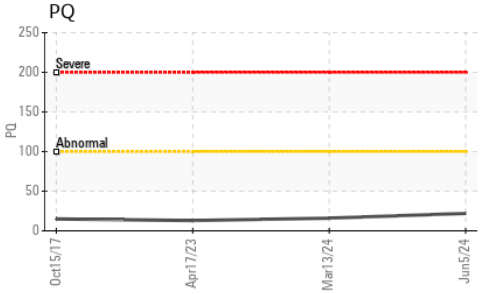
Particle Trend



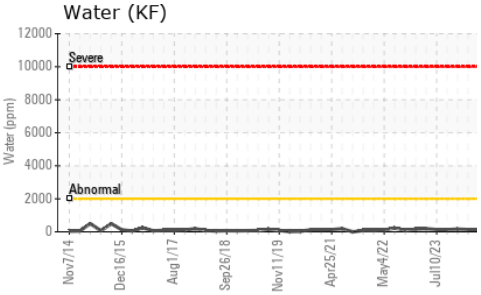

Water (KF)



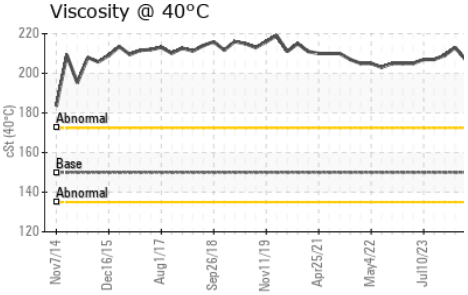

PQ




Water (KF)




Viscosity @ 40°C



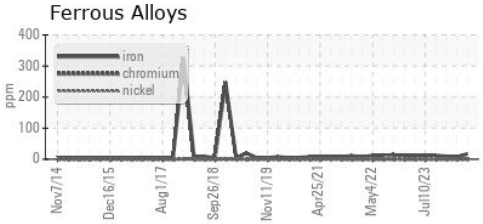

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| 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 | >0.2 | **NEG** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 150 | **207** | 213 | 209 |

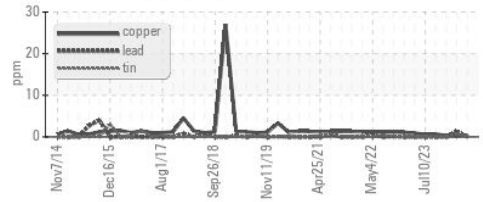
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

## GRAPHS

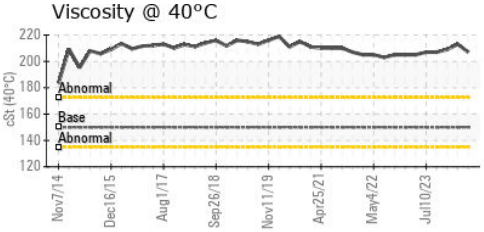
Ferrous Alloys



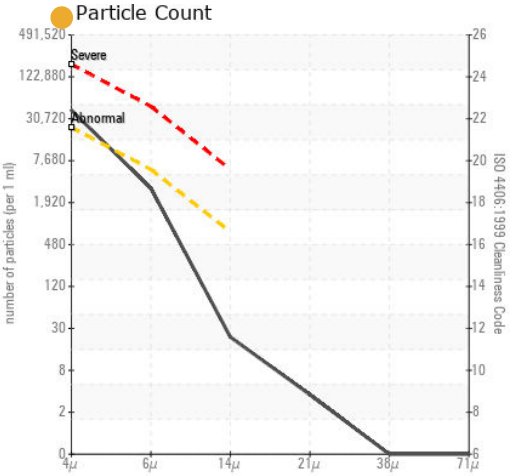

Non-ferrous Metals



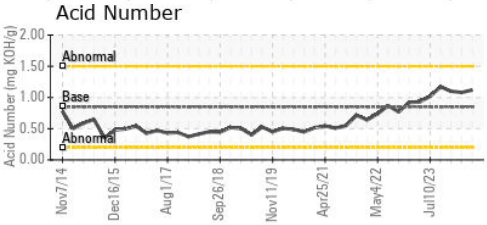

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : RP0037931
**Lab Number** : 06201513
**Unique Number** : 11063636
**Test Package** : IND 2 ( Additional Tests: PQ, PrtCount )

**Received** : 06 Jun 2024
**Tested** : 07 Jun 2024
**Diagnosed** : 09 Jun 2024 - Don Baldridge

*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)*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