



OIL ANALYSIS REPORT

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

Machine Id
CINCI PRESS 5
 Component
Hydraulic System
 Fluid
AW HYDRAULIC OIL ISO 32 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 32. Please confirm.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|----------|----------|
| Sample Number | | Client Info | | PTK0005823 | --- | --- |
| Sample Date | | Client Info | | 23 Jun 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 0 | --- | --- |
| Oil Age | hrs | Client Info | | 0 | --- | --- |
| Filter Age | hrs | Client Info | | 0 | --- | --- |
| Oil Changed | | Client Info | | N/A | --- | --- |
| Filter Changed | | Client Info | | N/A | --- | --- |
| Sample Status | | | | NORMAL | --- | --- |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|-----|-----|
| Iron | ppm | ASTM D5185m | >20 | 0 | --- | --- |
| Chromium | ppm | ASTM D5185m | >10 | 0 | --- | --- |
| Nickel | ppm | ASTM D5185m | >10 | 0 | --- | --- |
| Titanium | ppm | ASTM D5185m | | <1 | --- | --- |
| Silver | ppm | ASTM D5185m | | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >10 | 0 | --- | --- |
| Lead | ppm | ASTM D5185m | >10 | 0 | --- | --- |
| Copper | ppm | ASTM D5185m | >75 | <1 | --- | --- |
| Tin | ppm | ASTM D5185m | >10 | <1 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | --- | --- |
| White Metal | scalar | *Visual | NONE | NONE | --- | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- | --- |

CONTAMINATION

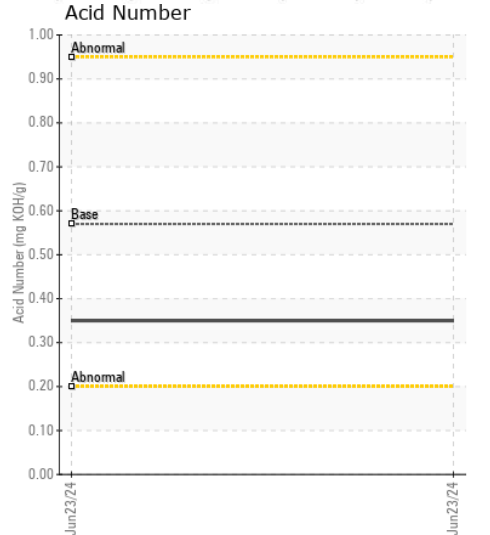
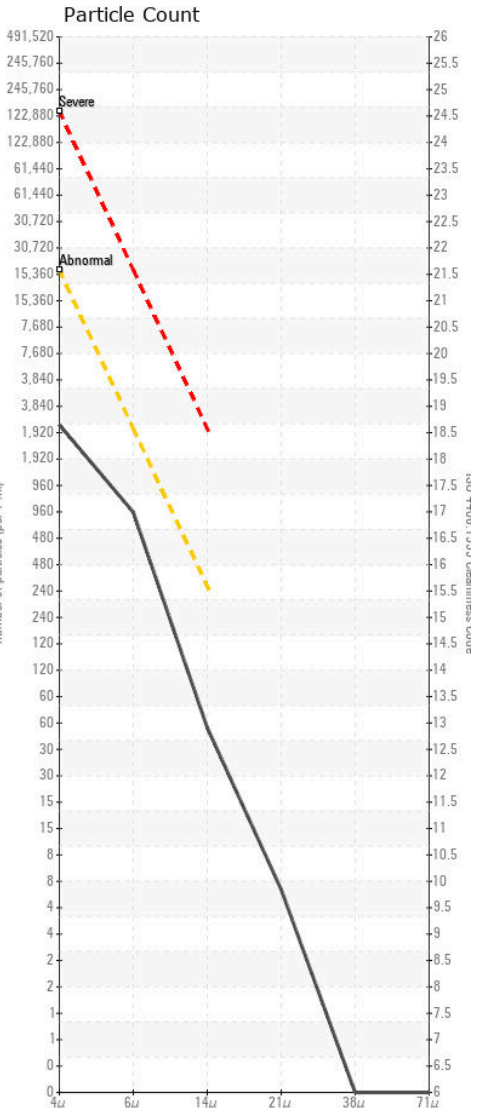
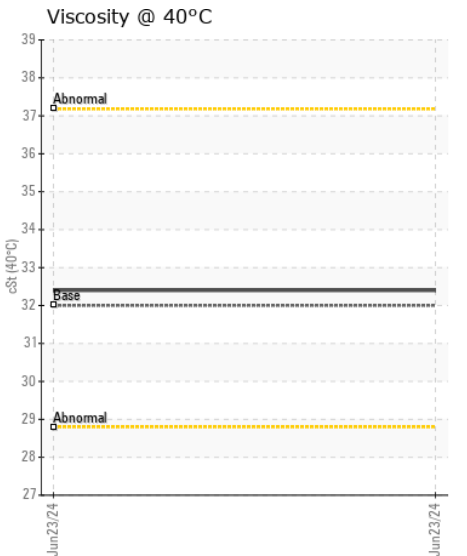
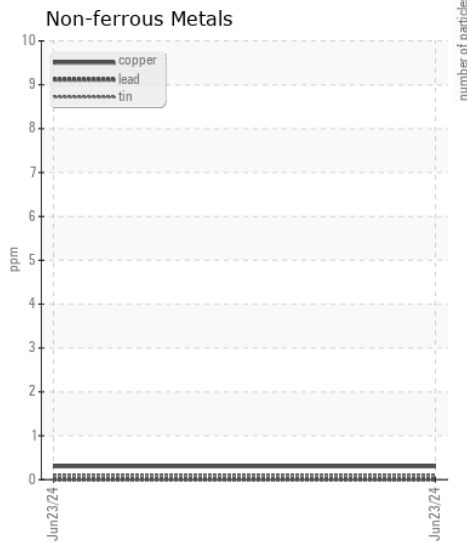
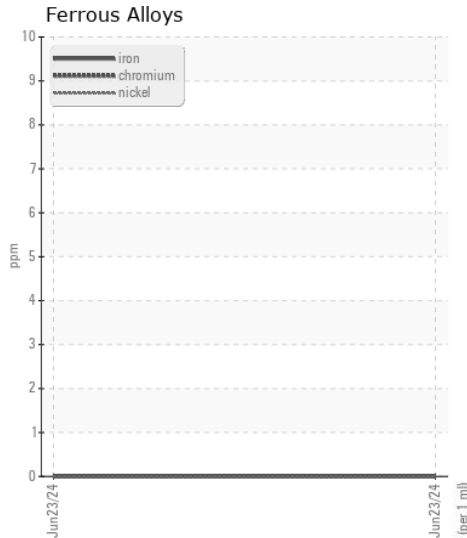
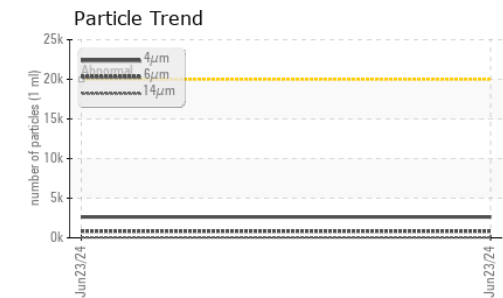
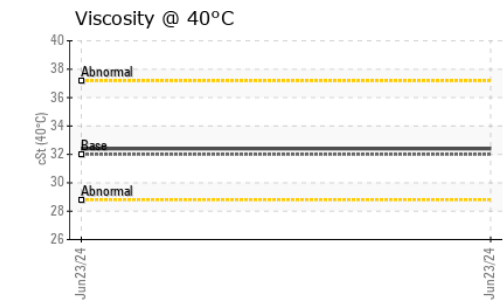
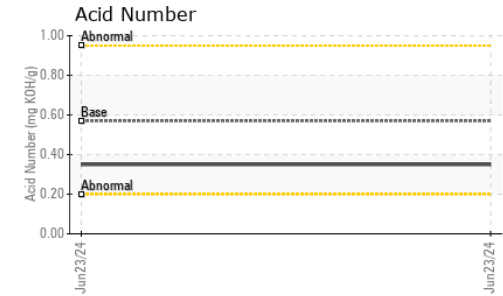
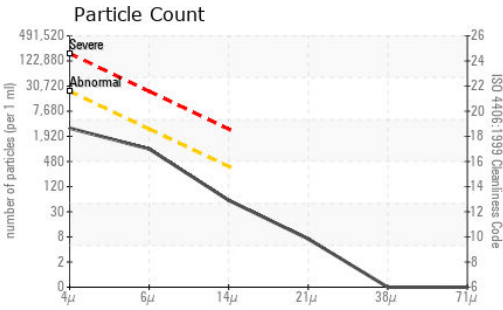
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

| | | | | | | |
|------------------|--------|--------------|-----------|-----------------|-----|-----|
| Silicon | ppm | ASTM D5185m | >20 | 1 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | 2 | --- | --- |
| Water | | WC Method | >0.1 | NEG | --- | --- |
| Particles >4µm | | ASTM D7647 | >20000 | 2631 | --- | --- |
| Particles >6µm | | ASTM D7647 | >2500 | 838 | --- | --- |
| Particles >14µm | | ASTM D7647 | >320 | 50 | --- | --- |
| Particles >21µm | | ASTM D7647 | >80 | 6 | --- | --- |
| Particles >38µm | | ASTM D7647 | >20 | 0 | --- | --- |
| Particles >71µm | | ASTM D7647 | >4 | 0 | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >21/18/15 | 19/17/13 | --- | --- |
| Silt | scalar | *Visual | NONE | NONE | --- | --- |
| Debris | scalar | *Visual | NONE | NONE | --- | --- |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- | --- |
| Odor | scalar | *Visual | NORML | NORML | --- | --- |
| Emulsified Water | scalar | *Visual | >0.1 | NEG | --- | --- |

FLUID CONDITION

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

| | | | | | | |
|------------------|----------|-------------|------|--------------|-----|-----|
| Sodium | ppm | ASTM D5185m | | 2 | --- | --- |
| Boron | ppm | ASTM D5185m | 5 | 0 | --- | --- |
| Barium | ppm | ASTM D5185m | 5 | 0 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 5 | 0 | --- | --- |
| Manganese | ppm | ASTM D5185m | | <1 | --- | --- |
| Magnesium | ppm | ASTM D5185m | 25 | 0 | --- | --- |
| Calcium | ppm | ASTM D5185m | 200 | 50 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 300 | 372 | --- | --- |
| Zinc | ppm | ASTM D5185m | 370 | 462 | --- | --- |
| Sulfur | ppm | ASTM D5185m | 2500 | 1011 | --- | --- |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.57 | 0.35 | --- | --- |
| Visc @ 40°C | cSt | ASTM D445 | 32 | 32.4 | --- | --- |



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PTK0005823
Lab Number : 06218143
Unique Number : 11096340
Test Package : MOB 2

Received : 24 Jun 2024
Tested : 25 Jun 2024
Diagnosed : 25 Jun 2024 - Wes Davis

MARKSMAN METALS CO INC
 12260 42ND ST NE
 ST MICHAEL, MN
 US 55376
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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)