



**PERFORMANCE
UNDER
PRESSURE**

OIL ANALYSIS REPORT

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

Area

No. 1 Paper Machine

Machine Id

1 PM 3RD DRY DRIVE STR#15 611-27-01A (S/N M027565-15)

Component

Gear Unit

Fluid

ROYAL PURPLE SYNERGY 90/220 (22 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

| Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|----------------|-----|-------------|-----------|--------------------|-------------|-------------|
| Sample Number | | Client Info | | RP0039746 | RP0038176 | RP0039740 |
| Sample Date | | Client Info | | 16 May 2024 | 22 Mar 2024 | 29 Dec 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 | | N/A | N/A | N/A |
| Filter Changed | | Client Info | | N/A | N/A | N/A |
| Sample Status | | | | NORMAL | NORMAL | ATTENTION |

WEAR

All component wear rates are normal.

| | | | | | | |
|--------------|--------|-------------|------|--------------|------|------|
| Iron | ppm | ASTM D5185m | >150 | 1 | 0 | 0 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >10 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >25 | 0 | 0 | 0 |
| Lead | ppm | ASTM D5185m | >100 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | 4 | 3 | 5 |
| Tin | ppm | ASTM D5185m | >10 | <1 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | <1 |
| White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |

CONTAMINATION

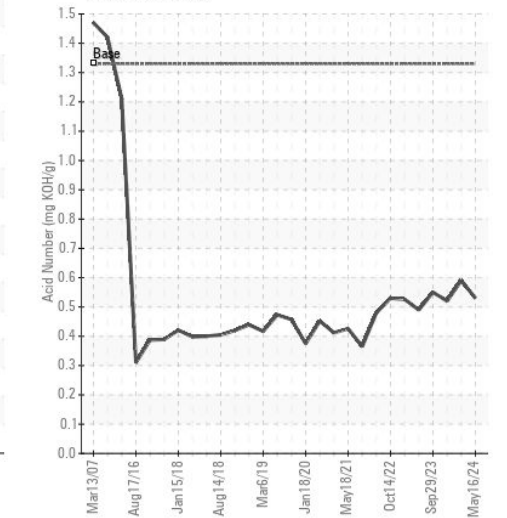
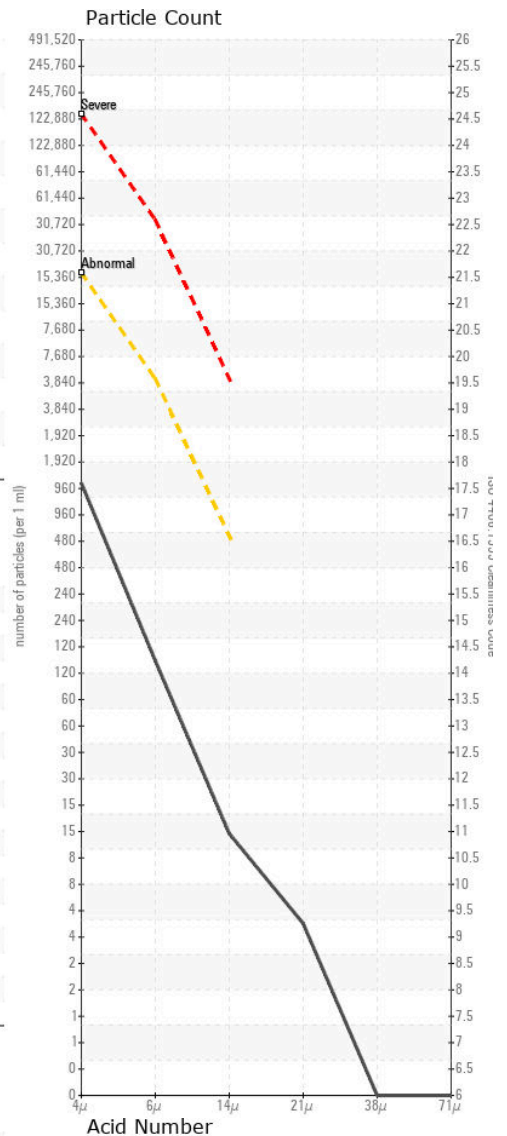
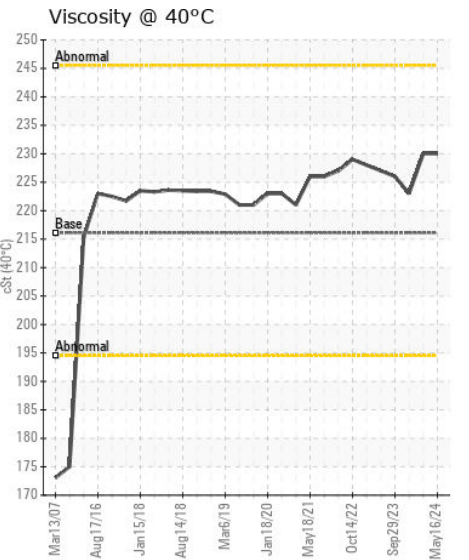
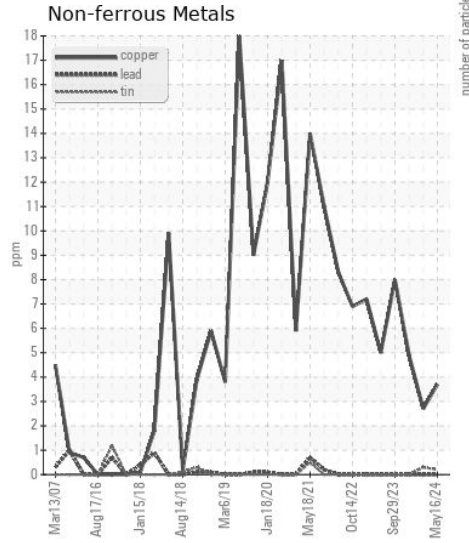
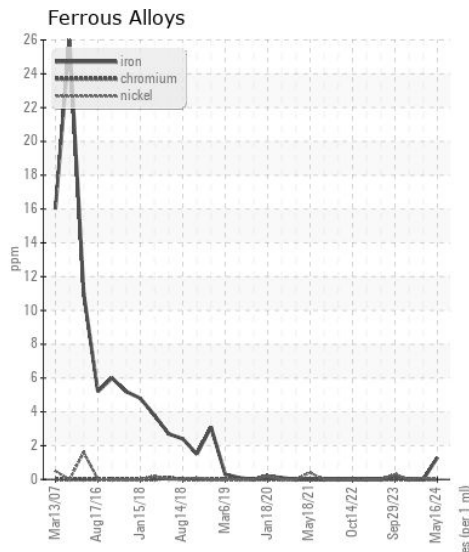
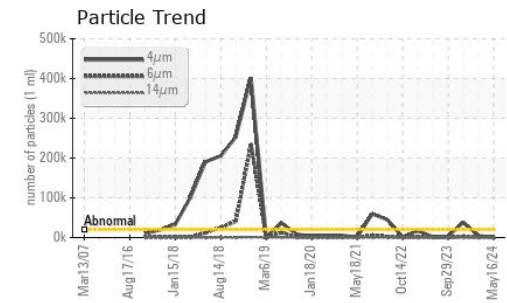
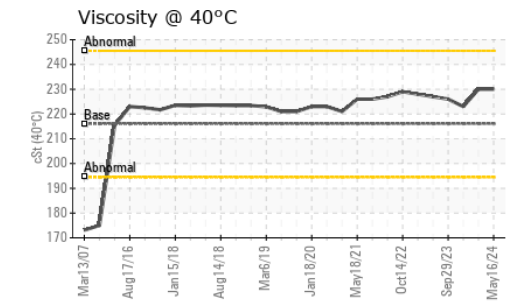
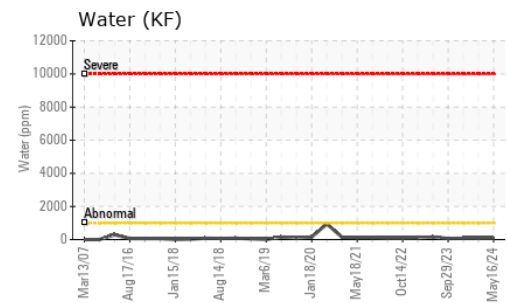
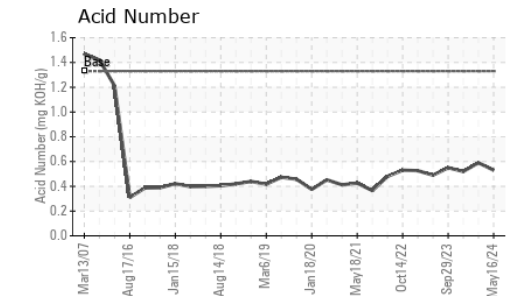
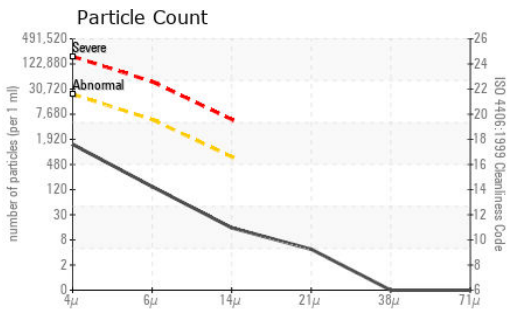
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The water content is negligible. The system and fluid cleanliness is acceptable.

| | | | | | | |
|------------------|--------|--------------|-----------|-----------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >50 | 4 | 3 | 4 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | <1 | 0 |
| Water | % | ASTM D6304 | >0.1 | 0.007 | 0.007 | 0.008 |
| ppm Water | ppm | ASTM D6304 | >1000 | 73 | 73 | 81 |
| Particles >4µm | | ASTM D7647 | >20000 | 1278 | 4720 | 38629 |
| Particles >6µm | | ASTM D7647 | >5000 | 125 | 754 | 2927 |
| Particles >14µm | | ASTM D7647 | >640 | 13 | 40 | 49 |
| Particles >21µm | | ASTM D7647 | >160 | 4 | 13 | 11 |
| Particles >38µm | | ASTM D7647 | >40 | 0 | 1 | 0 |
| Particles >71µm | | ASTM D7647 | >10 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >21/19/16 | 17/14/11 | 19/17/12 | 22/19/13 |
| 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 | >0.1 | NEG | NEG | 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 | | <1 | <1 | 0 |
| Boron | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Calcium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | 370 | 34 | 21 | 12 |
| Zinc | ppm | ASTM D5185m | | 7 | 0 | 0 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.33 | 0.53 | 0.59 | 0.52 |
| Visc @ 40°C | cSt | ASTM D445 | 216.1 | 230 | 230 | 223 |



Certificate L2367

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

Sample No. : RP0039746

Lab Number : 06187657

Unique Number : 11044409

Test Package : IND 2 (Additional Tests: PrtCount)

Received : 22 May 2024

Tested : 23 May 2024

Diagnosed : 24 May 2024 - Don Baldrige

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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)