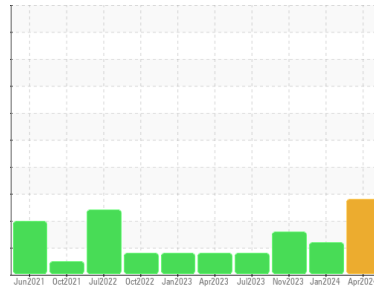




OIL ANALYSIS REPORT

Sample Rating Trend



Area
COLD MILL/CM-3STD-2N
 Machine Id
S1 WEST MOTOR BEARING 3ST2_S1 West Motor Bearing
 Component
Bearing
 Fluid
ROYAL PURPLE SYNFILM GT 68 (50 GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Wear

The tin level is abnormal. All other component wear rates are normal.

Contamination

There is a high amount of particulates 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.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | KFS0005214 | KFS0003649 | KFS0003644 |
| Sample Date | Client Info | 04 Apr 2024 | 12 Jan 2024 | 15 Nov 2023 |
| Machine Age | hrs | 0 | 0 | 0 |
| Oil Age | hrs | 0 | 0 | 0 |
| Oil Changed | Client Info | N/A | N/A | N/A |
| Sample Status | | ABNORMAL | ABNORMAL | ABNORMAL |

CONTAMINATION

| method | limit/base | current | history1 | history2 |
|--------|--------------|------------|----------|----------|
| Water | WC Method >2 | NEG | NEG | NEG |

WEAR METALS

| method | limit/base | current | history1 | history2 | |
|----------|------------|-----------------|--------------|----------|----|
| Iron | ppm | ASTM D5185m >20 | 1 | <1 | <1 |
| Chromium | ppm | ASTM D5185m >20 | <1 | <1 | <1 |
| Nickel | ppm | ASTM D5185m >20 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | <1 | 0 | <1 |
| Silver | ppm | ASTM D5185m | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >20 | 2 | 2 | <1 |
| Lead | ppm | ASTM D5185m >20 | 0 | 0 | <1 |
| Copper | ppm | ASTM D5185m >20 | 1 | 2 | 2 |
| Tin | ppm | ASTM D5185m >20 | ▲ 32 | 26 | 11 |
| Vanadium | ppm | ASTM D5185m | <1 | 0 | <1 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | 0 |

ADDITIVES

| method | limit/base | current | history1 | history2 | |
|------------|------------|----------------|-------------|----------|------|
| 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 | 0 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m 90 | 4 | 4 | 0 |
| Calcium | ppm | ASTM D5185m | 4 | <1 | 0 |
| Phosphorus | ppm | ASTM D5185m | 87 | 42 | 0 |
| Zinc | ppm | ASTM D5185m | 0 | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | 3131 | 4138 | 8979 |

CONTAMINANTS

| method | limit/base | current | history1 | history2 | |
|-----------|------------|-----------------|--------------|----------|---|
| Silicon | ppm | ASTM D5185m >15 | 5 | 3 | 2 |
| Sodium | ppm | ASTM D5185m | 2 | 0 | 2 |
| Potassium | ppm | ASTM D5185m >20 | <1 | <1 | 1 |

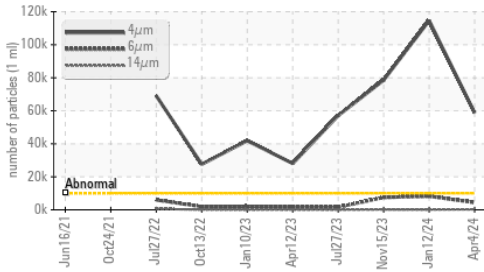
FLUID CLEANLINESS

| method | limit/base | current | history1 | history2 |
|-----------------|------------------------|-------------------|------------|------------|
| Particles >4µm | ASTM D7647 >10000 | ▲ 58778 | ▲ 114636 | ▲ 78567 |
| Particles >6µm | ASTM D7647 >2500 | ▲ 4440 | ▲ 8269 | ▲ 7520 |
| Particles >14µm | ASTM D7647 >160 | ▲ 251 | 67 | ▲ 174 |
| Particles >21µm | ASTM D7647 >40 | ▲ 58 | 16 | 40 |
| Particles >38µm | ASTM D7647 >10 | 1 | 2 | 2 |
| Particles >71µm | ASTM D7647 >3 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) >20/18/14 | ▲ 23/19/15 | ▲ 24/20/13 | ▲ 23/20/15 |

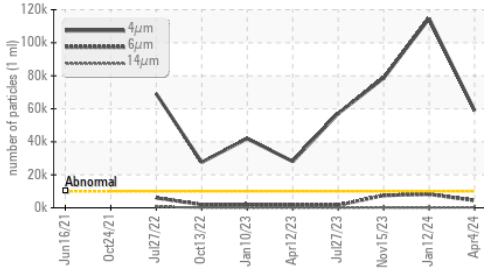
FLUID DEGRADATION

| method | limit/base | current | history1 | history2 | |
|------------------|------------|------------|-------------|----------|------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.31 | 0.29 | 0.24 |

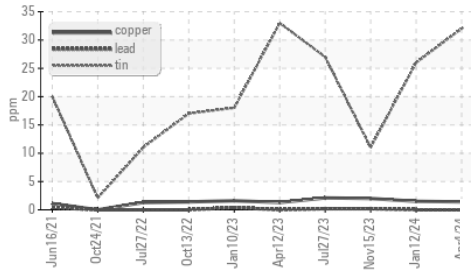
▲ Particle Trend



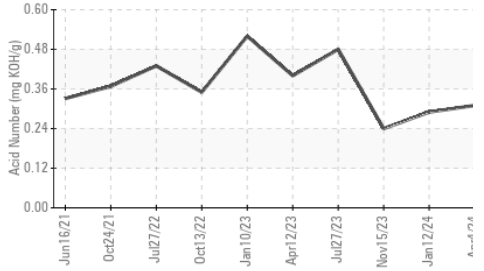
▲ Particle Trend



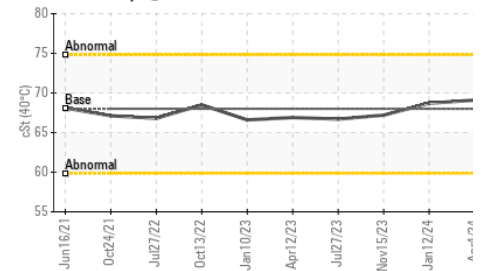
▲ Non-ferrous Metals



Acid Number



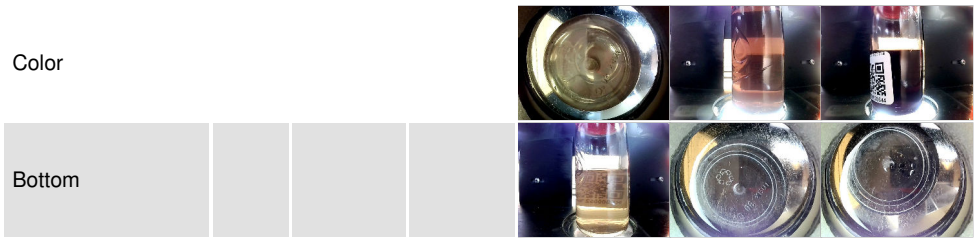
Viscosity @ 40°C



| 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 | LIGHT | NONE |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >2 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

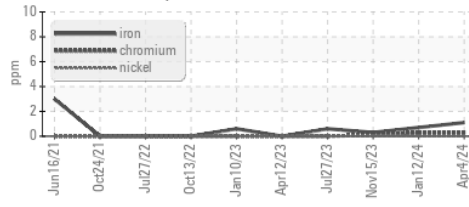
| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 68 | 69.1 | 68.7 | 67.2 |

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

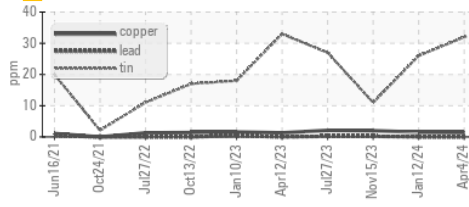


GRAPHS

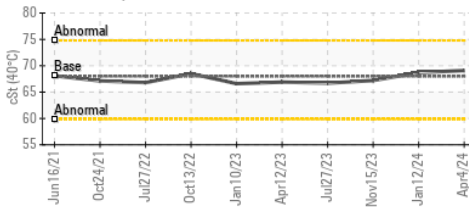
Ferrous Alloys



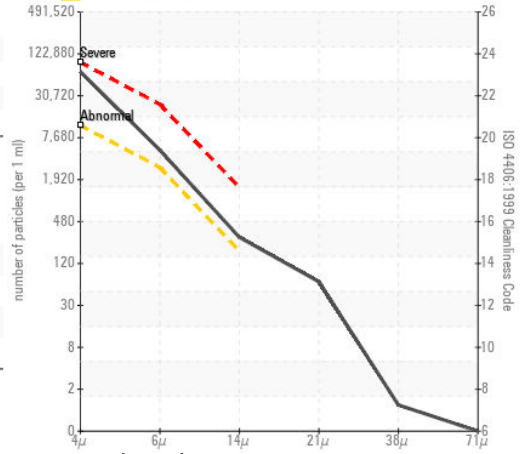
Non-ferrous Metals



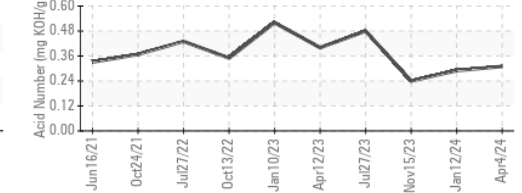
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KFS0005214
Lab Number : 06141312
Unique Number : 10966120
Test Package : IND 2 (Additional Tests: PrtCount)

CONSTELLIUM
 4805 SECOND STREET
 MUSCLE SHOALS, AL
 US 35661

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

Contact: Randy Nichols
 randall.nichols@constellium.com

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

T: (256)386-6956

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

F: