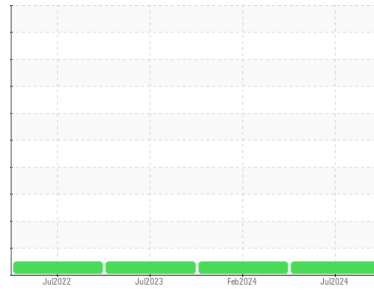




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Area

Confection-Confin

Machine Id

[Confection-Confin] 360426154 - KRUPP EXTRUDER D02

Component

Gearbox

Fluid

SHELL OMALA S2 GX 320 (125 LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination 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 | | | TLC0001976 | TLC0001379 | TLC0001186 |
| Sample Date | Client Info | | | 11 Jul 2024 | 01 Feb 2024 | 11 Jul 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 | | | | NORMAL | NORMAL | NORMAL |

| CONTAMINATION | | method | limit/base | current | history1 | history2 |
|---------------|-----------|--------|------------|------------|----------|----------|
| Water | WC Method | | >0.2 | NEG | NEG | NEG |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| PQ | | ASTM D8184 | | 19 | 19 | 20 |
| Iron | ppm | ASTM D5185m | >200 | 34 | 27 | 28 |
| Chromium | ppm | ASTM D5185m | >15 | 0 | 0 | <1 |
| Nickel | ppm | ASTM D5185m | >15 | 0 | 0 | 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 | 1 | 0 |
| Copper | ppm | ASTM D5185m | >200 | <1 | 0 | <1 |
| Tin | ppm | ASTM D5185m | >25 | 0 | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |

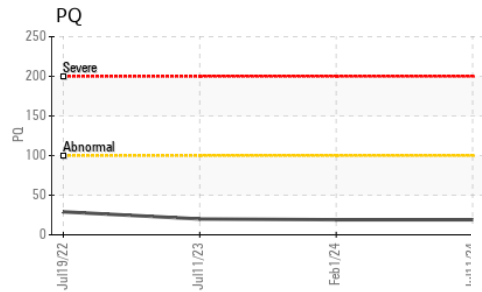
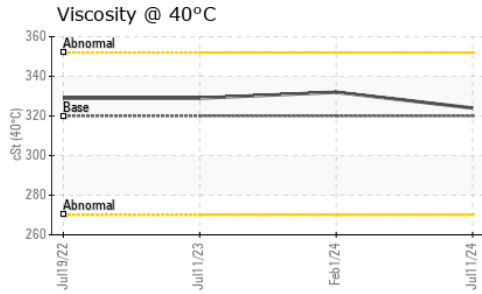
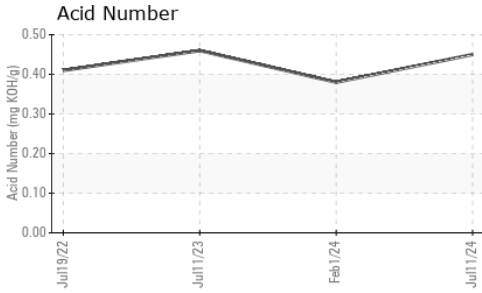
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 6.2 | 8 | 9 | 9 |
| Barium | ppm | ASTM D5185m | 0.0 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | 1 | <1 |
| Magnesium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| Calcium | ppm | ASTM D5185m | 0.0 | 0 | 0 | 11 |
| Phosphorus | ppm | ASTM D5185m | 290 | 205 | 136 | 213 |
| Zinc | ppm | ASTM D5185m | 3.8 | 0 | 0 | 8 |
| Sulfur | ppm | ASTM D5185m | 8167 | 19607 | 15984 | 20415 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|----------|----------|----------|
| Silicon | ppm | ASTM D5185m | >50 | 2 | 0 | 1 |
| Sodium | ppm | ASTM D5185m | | 2 | 1 | 1 |
| Potassium | ppm | ASTM D5185m | >20 | 0 | <1 | 2 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | | 0.45 | 0.38 | 0.46 |



OIL ANALYSIS REPORT



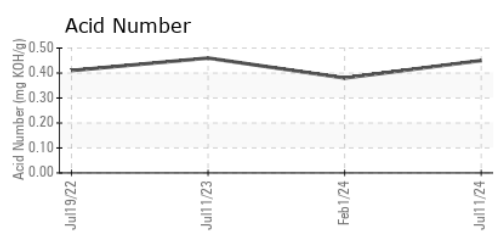
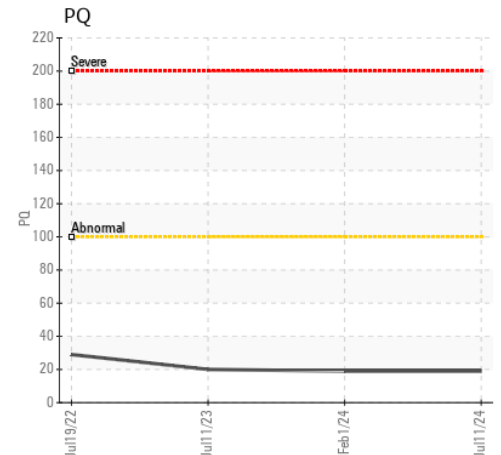
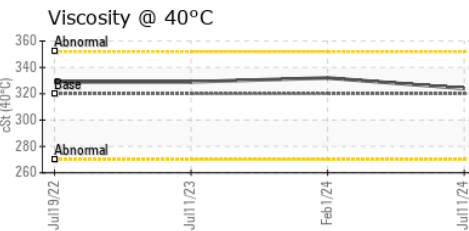
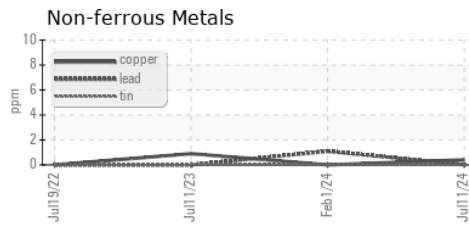
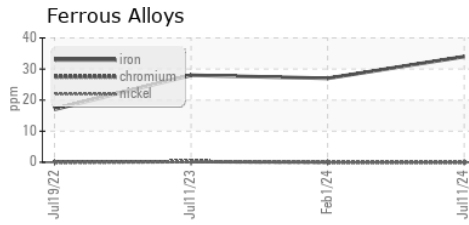
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE |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

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 | |
|------------------|--------|------------|---------|------------|----------|-----|
| Visc @ 40°C | cSt | ASTM D445 | 320 | 324 | 332 | 329 |

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



GRAPHS



Certificate L2367

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

Sample No. : TLC0001976

Lab Number : 06240964

Unique Number : 11129798

Test Package : PLANT

Received : 18 Jul 2024

Tested : 20 Jul 2024

Diagnosed : 20 Jul 2024 - Wes Davis

MICHELIN US 10

16 BIBB WAY

ANDERSON, SC

US 29626

Contact: TERRICK PRESLEY

terrick.presley@michelin.com

T: (803)761-8053

F:

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)