



PROBLEM SUMMARY

Sample Rating Trend

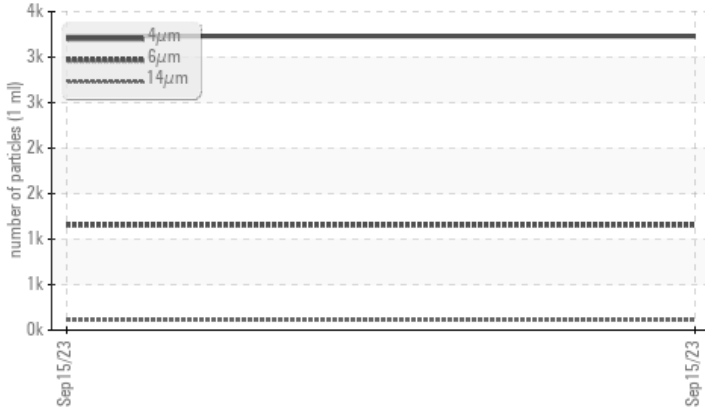
ISO



Area
[000831]
 Machine Id
8103882 (S/N 1153)
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

| Sample Status | | | ATTENTION | --- | --- |
|-----------------|--------------|-----------|------------|-----|-----|
| Particles >14µm | ASTM D7647 | >80 | ▲ 110 | --- | --- |
| Particles >21µm | ASTM D7647 | >20 | ▲ 30 | --- | --- |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13 | ▲ 19/17/14 | --- | --- |

Customer Id: MILHAYKC
 Sample No.: KCP40028
 Lab Number: 05960632
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
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angela.borella@wearcheckusa.com

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---------------|--------|------|---------|---|
| Change Fluid | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |
| Change Filter | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend

ISO

Area

[000831]

Machine Id

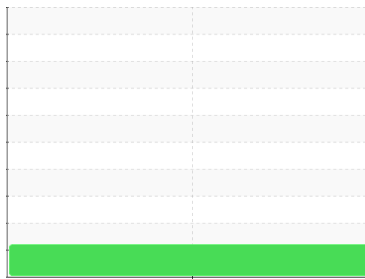
8103882 (S/N 1153)

Component

Compressor

Fluid

KAESER SIGMA (OEM) M-460 (--- GAL)



DIAGNOSIS

▲ Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

▲ Contamination

There is a moderate 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 | KCP40028 | --- | --- |
| Sample Date | Client Info | 15 Sep 2023 | --- | --- |
| Machine Age | hrs | Client Info | 3849 | --- |
| Oil Age | hrs | Client Info | 0 | --- |
| Oil Changed | Client Info | Changed | --- | --- |
| Sample Status | | ATTENTION | --- | --- |

WEAR METALS

| method | limit/base | current | history1 | history2 |
|----------|------------|-----------------|--------------|----------|
| Iron | ppm | ASTM D5185m >50 | 2 | --- |
| Chromium | ppm | ASTM D5185m >10 | 0 | --- |
| Nickel | ppm | ASTM D5185m >3 | 0 | --- |
| Titanium | ppm | ASTM D5185m >3 | 0 | --- |
| Silver | ppm | ASTM D5185m >2 | 0 | --- |
| Aluminum | ppm | ASTM D5185m >10 | 0 | --- |
| Lead | ppm | ASTM D5185m >10 | 0 | --- |
| Copper | ppm | ASTM D5185m >50 | 8 | --- |
| Tin | ppm | ASTM D5185m >10 | <1 | --- |
| Vanadium | ppm | ASTM D5185m | 0 | --- |
| Cadmium | ppm | ASTM D5185m | 0 | --- |

ADDITIVES

| method | limit/base | current | history1 | history2 |
|------------|------------|-------------------|--------------|----------|
| Boron | ppm | ASTM D5185m 0 | 0 | --- |
| Barium | ppm | ASTM D5185m 90 | 2 | --- |
| Molybdenum | ppm | ASTM D5185m 0 | <1 | --- |
| Manganese | ppm | ASTM D5185m | <1 | --- |
| Magnesium | ppm | ASTM D5185m 100 | 49 | --- |
| Calcium | ppm | ASTM D5185m 0 | 2 | --- |
| Phosphorus | ppm | ASTM D5185m 0 | 5 | --- |
| Zinc | ppm | ASTM D5185m 0 | 3 | --- |
| Sulfur | ppm | ASTM D5185m 23500 | 22151 | --- |

CONTAMINANTS

| method | limit/base | current | history1 | history2 |
|-----------|------------|------------------|--------------|----------|
| Silicon | ppm | ASTM D5185m >25 | <1 | --- |
| Sodium | ppm | ASTM D5185m | 17 | --- |
| Potassium | ppm | ASTM D5185m >20 | 3 | --- |
| Water | % | ASTM D6304 >0.05 | 0.016 | --- |
| ppm Water | ppm | ASTM D6304 >500 | 160.1 | --- |

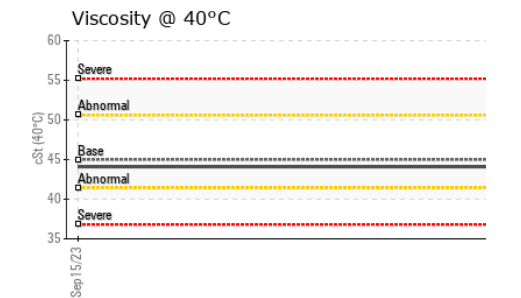
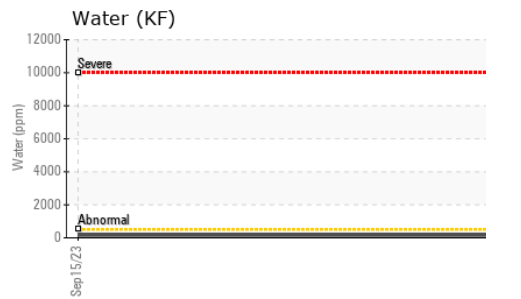
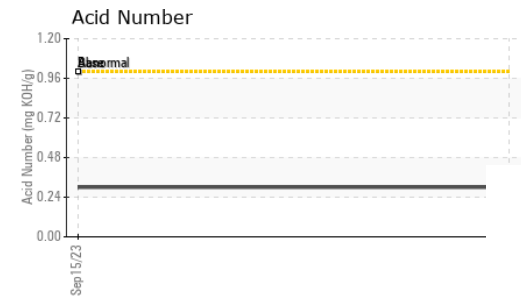
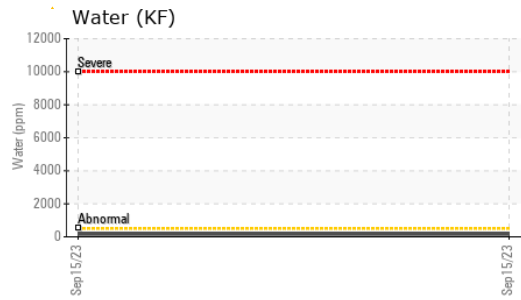
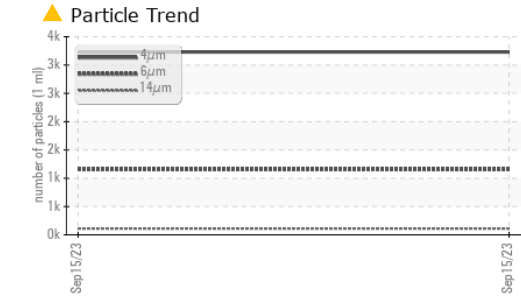
FLUID CLEANLINESS

| method | limit/base | current | history1 | history2 |
|-----------------|------------------------|-------------------|----------|----------|
| Particles >4µm | ASTM D7647 | 3230 | --- | --- |
| Particles >6µm | ASTM D7647 >1300 | 1154 | --- | --- |
| Particles >14µm | ASTM D7647 >80 | ▲ 110 | --- | --- |
| Particles >21µm | ASTM D7647 >20 | ▲ 30 | --- | --- |
| Particles >38µm | ASTM D7647 >4 | 2 | --- | --- |
| Particles >71µm | ASTM D7647 >3 | 1 | --- | --- |
| Oil Cleanliness | ISO 4406 (c) >--/17/13 | ▲ 19/17/14 | --- | --- |

FLUID DEGRADATION

| method | limit/base | current | history1 | history2 |
|------------------|------------|----------------|-------------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 1.0 | 0.30 | --- |

OIL ANALYSIS REPORT



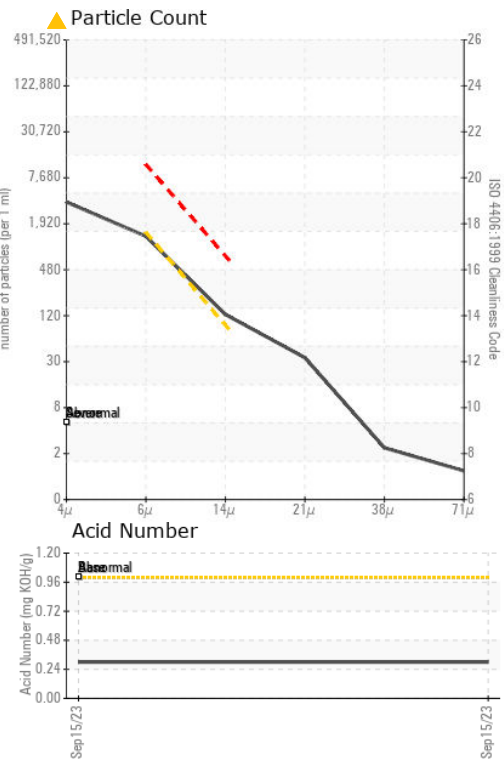
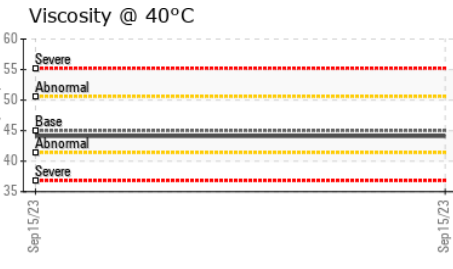
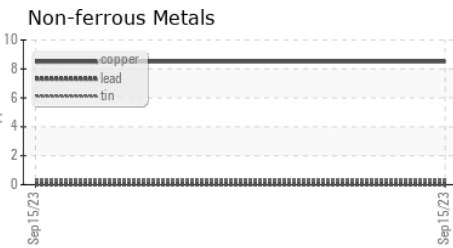
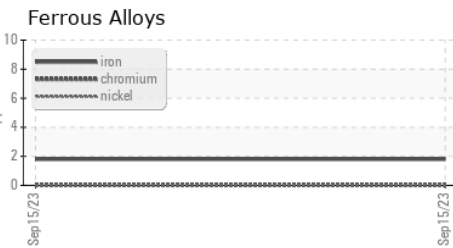
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|--------------|----------|
| White Metal | scalar | *Visual | NONE | LIGHT | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- |
| 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 | >0.05 | NEG | --- |
| Free Water | scalar | *Visual | | NEG | --- |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|-------------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 45 | 44.1 | --- |

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

| | | | |
|--------|--|----------|----------|
| Color | | no image | no image |
| Bottom | | no image | no image |

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP40028 **Received** : 25 Sep 2023
Lab Number : 05960632 **Diagnosed** : 27 Sep 2023
Unique Number : 10661845 **Diagnostician** : Angela Borella
Test Package : IND 2 (Additional Tests: KF, PrtCount)

MILLWORKI MANAGEMENT
 1722 SABRE ST
 HAYWARD, CA
 US 94545
 Contact: Service Manager

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)