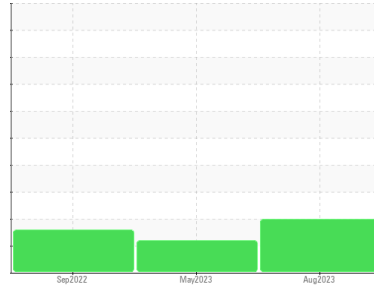




PROBLEM SUMMARY

Sample Rating Trend



WEAR

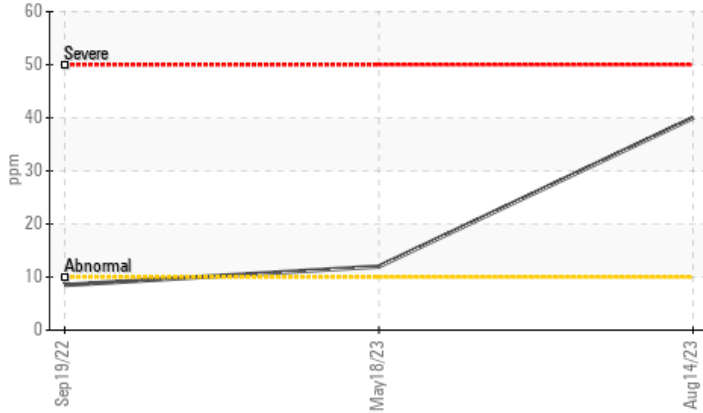


Machine Id
7924243 (S/N 1107)

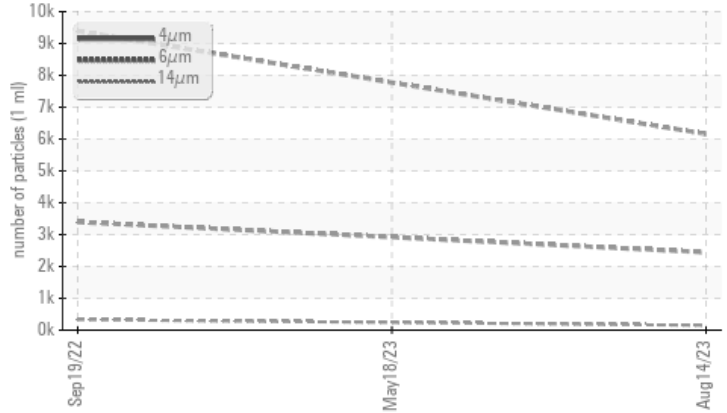
Component
Compressor
Fluid
KAESER SIGMA (OEM) S-460 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Aluminum (ppm)



▲ Particle Trend



RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

| Sample Status | | | ABNORMAL | ABNORMAL | ABNORMAL |
|-----------------|-----|---------------------|-----------------|----------|----------|
| Aluminum | ppm | ASTM D5185m >10 | ▲ 40 | ▲ 12 | 8 |
| Particles >6µm | | ASTM D7647 >1300 | ▲ 2444 | --- | ▲ 3393 |
| Particles >14µm | | ASTM D7647 >80 | ▲ 151 | --- | ▲ 330 |
| Oil Cleanliness | | ISO 4406 (c) >17/13 | ▲ 18/14 | --- | ▲ 19/16 |

Customer Id: MONBOZ
Sample No.: KC05960600
Lab Number: 05960600
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Angela Borella +1 800-237-1369
angela.borella@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

18 May 2023 Diag: Don Baldrige

WEAR



No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. The aluminum level is abnormal. All other component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



19 Sep 2022 Diag: Doug Bogart

ISO



No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

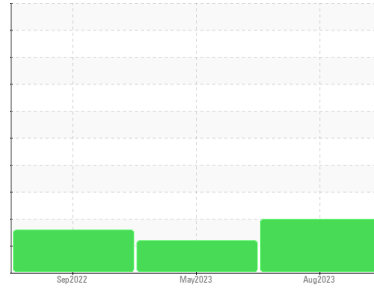
view report





OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
7924243 (S/N 1107)
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) S-460 (--- GAL)

DIAGNOSIS

▲ **Recommendation**

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

▲ **Wear**

The aluminum level is abnormal. All other 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 suitable for further service.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | | KC05960600 | KC100194 | KC106314 |
| Sample Date | Client Info | | | 14 Aug 2023 | 18 May 2023 | 19 Sep 2022 |
| Machine Age | hrs | Client Info | | 2481 | 7249 | 4222 |
| Oil Age | hrs | Client Info | | 0 | 1350 | 1365 |
| Oil Changed | Client Info | | | N/A | Not Changd | Changed |
| Sample Status | | | | ABNORMAL | ABNORMAL | ABNORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|-------------|----------|
| Iron | ppm | ASTM D5185m | >50 | 10 | 3 | 4 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | ▲ 40 | ▲ 12 | 8 |
| Lead | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | 4 | 2 | 5 |
| Tin | ppm | ASTM D5185m | >10 | <1 | 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 | | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 90 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | <1 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 90 | <1 | <1 | <1 |
| Calcium | ppm | ASTM D5185m | 2 | <1 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | | 421 | 474 | 146 |
| Zinc | ppm | ASTM D5185m | | 349 | 75 | 94 |

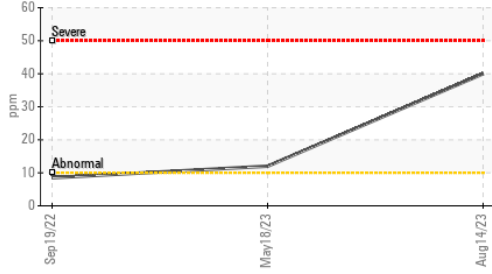
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >25 | <1 | <1 | <1 |
| Sodium | ppm | ASTM D5185m | | 4 | 0 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | 0 | 1 |
| Water | % | ASTM D6304 | >0.05 | 0.008 | 0.005 | 0.004 |
| ppm Water | ppm | ASTM D6304 | >500 | 81.3 | 57.4 | 40.8 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|----------------|----------|----------|
| Particles >4µm | | ASTM D7647 | | 6157 | --- | 9392 |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ 2444 | --- | ▲ 3393 |
| Particles >14µm | | ASTM D7647 | >80 | ▲ 151 | --- | ▲ 330 |
| Particles >21µm | | ASTM D7647 | >20 | 21 | --- | ▲ 86 |
| Particles >38µm | | ASTM D7647 | >4 | 0 | --- | 2 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | --- | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >17/13 | ▲ 18/14 | --- | ▲ 19/16 |

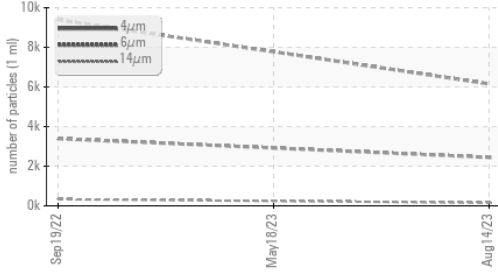
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.4 | 0.95 | 1.48 | 0.47 |

OIL ANALYSIS REPORT

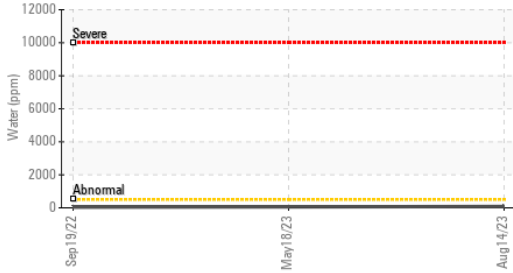
▲ Aluminum (ppm)



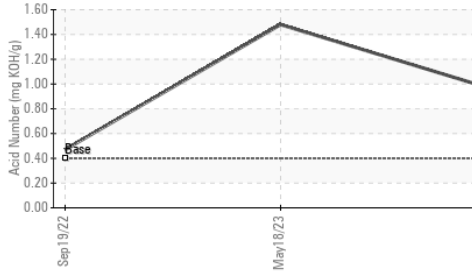
▲ Particle Trend



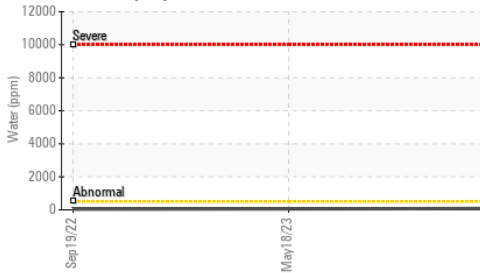
Water (KF)



Acid Number



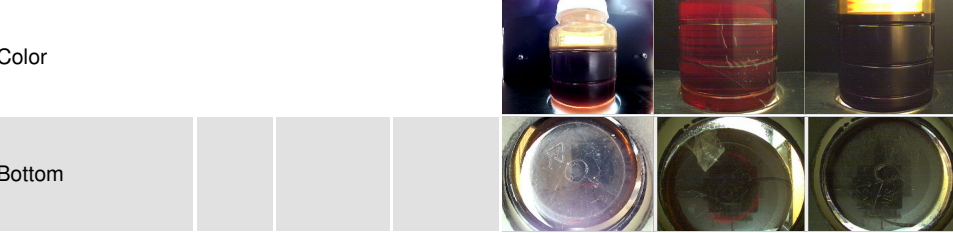
Water (KF)



| 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 | ▲ MODER |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | NORML | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.05 | NEG | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

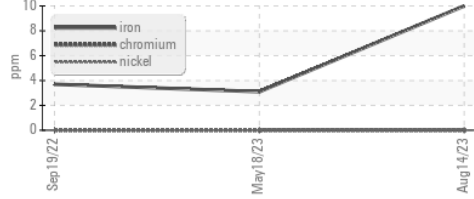
| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 46 | 47.2 | 47.3 | 46.1 |

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

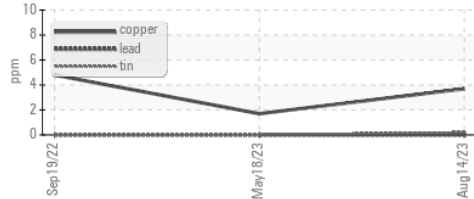


GRAPHS

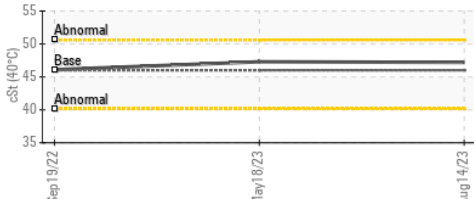
Ferrous Alloys



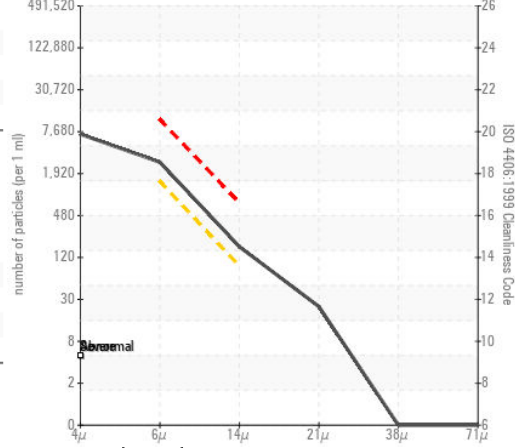
Non-ferrous Metals



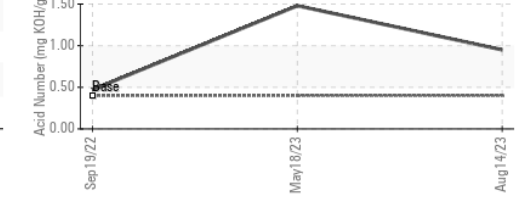
Viscosity @ 40°C



▲ Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KC05960600 **Received** : 25 Sep 2023
Lab Number : 05960600 **Diagnosed** : 27 Sep 2023
Unique Number : 10661813 **Diagnostician** : Angela Borella
Test Package : IND 2

MONTANA CONTAINER COMPANY
 1925 DEADMANS GULCH
 BOZEMAN, MT
 US 59715
 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)

T:
F: