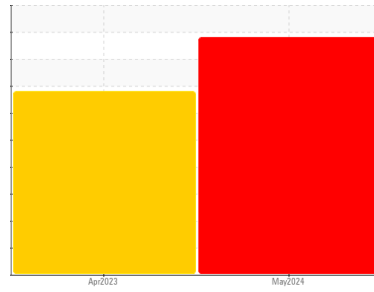




# PROBLEM SUMMARY

## Sample Rating Trend

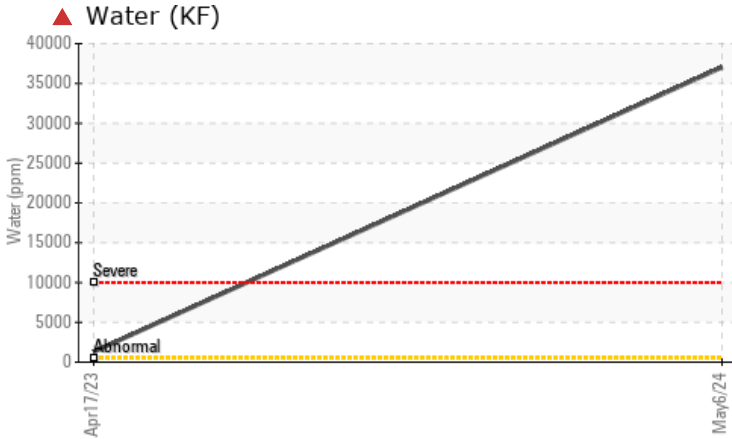


WATER



Machine Id  
**KAESER 8342471**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) M-460 (--- GAL)**

## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

The filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in this sample. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

## PROBLEMATIC TEST RESULTS

| Sample Status    |        |            |       | SEVERE           | SEVERE  | --- |
|------------------|--------|------------|-------|------------------|---------|-----|
| Water            | %      | ASTM D6304 | >0.05 | ▲ <b>3.704</b>   | ▲ 0.129 | --- |
| ppm Water        | ppm    | ASTM D6304 | >500  | ▲ <b>37040</b>   | ▲ 1290  | --- |
| Silt             | scalar | *Visual    | NONE  | ▲ <b>MODER</b>   | NONE    | --- |
| Emulsified Water | scalar | *Visual    | >0.05 | ▲ <b>0.2%</b>    | 0.2%    | --- |
| Free Water       | scalar | *Visual    |       | ▲ <b>&gt;10%</b> | ▲ 10.0  | --- |

Customer Id: SUPEAS  
 Sample No.: KCPA016127  
 Lab Number: 06180691  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Jonathan Hester +1 919-379-4092 x4092  
[jhester@wearcheckusa.com](mailto:jhester@wearcheckusa.com)

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

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description   |
|--------|--------|------|---------|---|
| Alert  | ---    | ---  | ?       | We were unable to perform a particle count due to a high concentration of particles present in this sample. |

HISTORICAL DIAGNOSIS

WATER



**17 Apr 2023 Diag: Jonathan Hester**

The filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in this sample. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition. All component wear rates are normal. Excessive free water present. There is a light concentration of water present in the oil. 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.

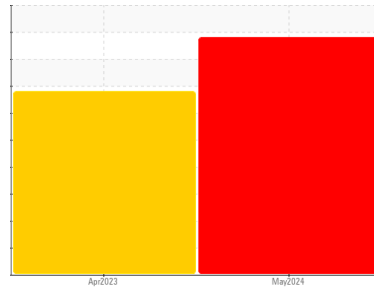
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id  
**KAESER 8342471**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) M-460 (--- GAL)**

## DIAGNOSIS

### ▲ Recommendation

The filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in this sample. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

### Wear

All component wear rates are normal.

### ▲ Contamination

Excessive free water present. There is a high concentration of water present in the oil. There is a moderate amount of visible silt present in the sample.

### Fluid Condition

The AN level is acceptable for this fluid.

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1    | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|----------|
| Sample Number      | Client Info |             |            | <b>KCPA016127</b>  | KCP52801    | ---      |
| Sample Date        | Client Info |             |            | <b>06 May 2024</b> | 17 Apr 2023 | ---      |
| Machine Age        | hrs         | Client Info |            | <b>979</b>         | 604         | ---      |
| Oil Age            | hrs         | Client Info |            | <b>334</b>         | 0           | ---      |
| Oil Changed        | Client Info |             |            | <b>Not Changed</b> | Not Changed | ---      |
| Sample Status      |             |             |            | <b>SEVERE</b>      | SEVERE      | ---      |

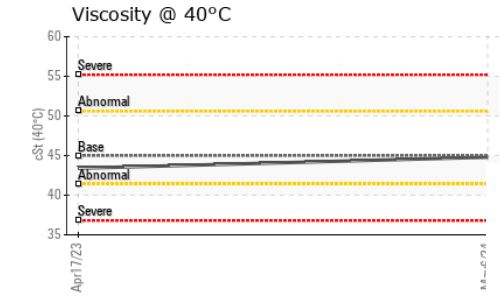
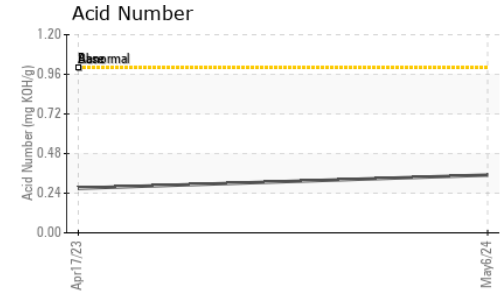
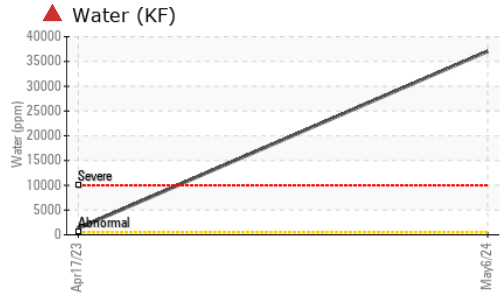
| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >50        | <b>5</b>     | 8        | ---      |
| Chromium    | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 0        | ---      |
| Nickel      | ppm | ASTM D5185m | >3         | <b>1</b>     | 2        | ---      |
| Titanium    | ppm | ASTM D5185m | >3         | <b>&lt;1</b> | 0        | ---      |
| Silver      | ppm | ASTM D5185m | >2         | <b>&lt;1</b> | 0        | ---      |
| Aluminum    | ppm | ASTM D5185m | >10        | <b>2</b>     | 0        | ---      |
| Lead        | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 0        | ---      |
| Copper      | ppm | ASTM D5185m | >50        | <b>16</b>    | 22       | ---      |
| Tin         | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 0        | ---      |
| Vanadium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | ---      |
| Cadmium     | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | ---      |

| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | ---      |
| Barium     | ppm | ASTM D5185m | 90         | <b>0</b>     | 0        | ---      |
| Molybdenum | ppm | ASTM D5185m | 0          | <b>&lt;1</b> | 0        | ---      |
| Manganese  | ppm | ASTM D5185m |            | <b>&lt;1</b> | 1        | ---      |
| Magnesium  | ppm | ASTM D5185m | 100        | <b>36</b>    | 26       | ---      |
| Calcium    | ppm | ASTM D5185m | 0          | <b>2</b>     | 3        | ---      |
| Phosphorus | ppm | ASTM D5185m | 0          | <b>10</b>    | 8        | ---      |
| Zinc       | ppm | ASTM D5185m | 0          | <b>14</b>    | 0        | ---      |
| Sulfur     | ppm | ASTM D5185m | 23500      | <b>21427</b> | 20054    | ---      |

| CONTAMINANTS |     | method      | limit/base | current        | history1 | history2 |
|--------------|-----|-------------|------------|----------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>2</b>       | <1       | ---      |
| Sodium       | ppm | ASTM D5185m |            | <b>4</b>       | 1        | ---      |
| Potassium    | ppm | ASTM D5185m | >20        | <b>2</b>       | 0        | ---      |
| Water        | %   | ASTM D6304  | >0.05      | <b>▲ 3.704</b> | ▲ 0.129  | ---      |
| ppm Water    | ppm | ASTM D6304  | >500       | <b>▲ 37040</b> | ▲ 1290   | ---      |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 1.0        | <b>0.35</b> | 0.27     | ---      |

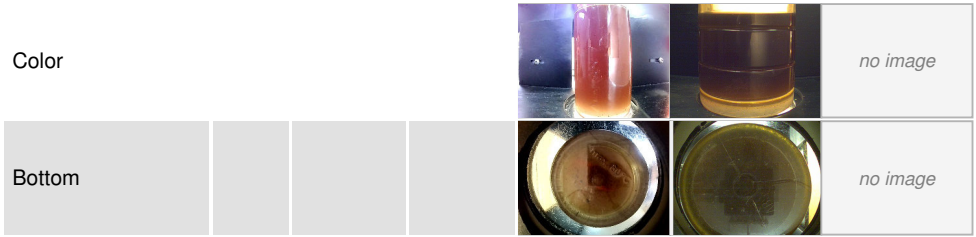
# OIL ANALYSIS REPORT



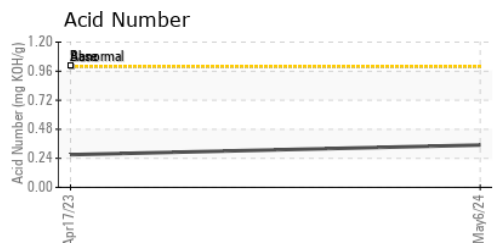
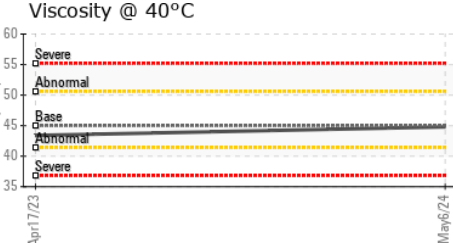
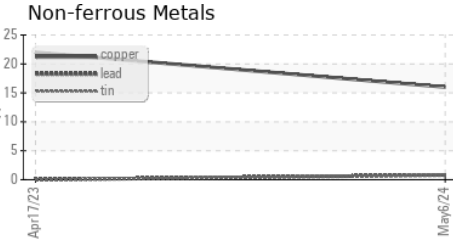
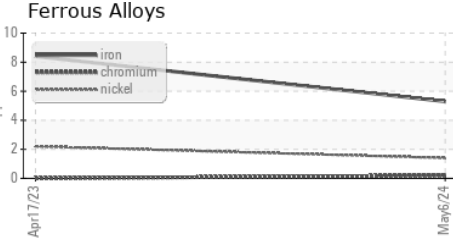
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | ---      |
| Silt             | scalar | *Visual    | NONE    | ▲ MODER  | ---      |
| Debris           | scalar | *Visual    | NONE    | ▲ MODER  | ---      |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | ---      |
| Appearance       | scalar | *Visual    | NORML   | NORML    | ---      |
| Odor             | scalar | *Visual    | NORML   | NORML    | ---      |
| Emulsified Water | scalar | *Visual    | >0.05   | ▲ 0.2%   | 0.2%     |
| Free Water       | scalar | *Visual    |         | ▲ >10%   | ▲ 10.0   |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 45      | 44.8     | 43.4     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA016127 **Received** : 15 May 2024  
**Lab Number** : 06180691 **Tested** : 23 May 2024  
**Unique Number** : 11032017 **Diagnosed** : 23 May 2024 - Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

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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)