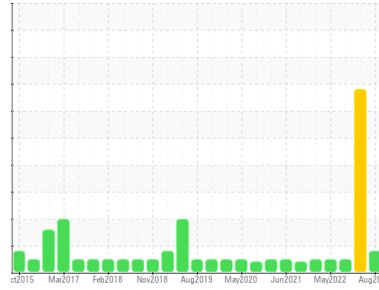




# PROBLEM SUMMARY

Sample Rating Trend



## SEDIMENT



Machine Id  
**KAESER CSD 75 5050670 (S/N 1036)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

### COMPONENT CONDITION SUMMARY

No relevant graphs to display

### RECOMMENDATION

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.

### PROBLEMATIC TEST RESULTS

| Sample Status |        |         |      | ABNORMAL | SEVERE | NORMAL |
|---------------|--------|---------|------|----------|--------|--------|
| Silt          | scalar | *Visual | NONE | ▲ MODER  | NONE   | NONE   |

Customer Id: POWMONKC  
 Sample No.: KC124469  
 Lab Number: 05979614  
 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

01 Mar 2023 Diag: Jonathan Hester

WATER



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. 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



08 Nov 2022 Diag: Angela Borella

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



12 May 2022 Diag: Doug Bogart

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

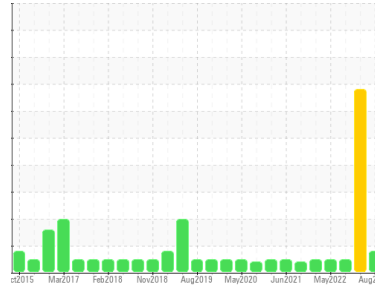
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**SEDIMENT**



Machine Id  
**KAESER CSD 75 5050670 (S/N 1036)**

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

**DIAGNOSIS**

**Recommendation**

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.

**Wear**

All component wear rates are normal.

**Contamination**

There is a moderate amount of visible silt present in the sample.

**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 |             | <b>KC124469</b>    | KC105634    | KC108269    |
| Sample Date   | Client Info |             | <b>09 Aug 2023</b> | 01 Mar 2023 | 08 Nov 2022 |
| Machine Age   | hrs         | Client Info | <b>49775</b>       | 4754        | 45508       |
| Oil Age       | hrs         | Client Info | <b>0</b>           | 4754        | 3000        |
| Oil Changed   | Client Info |             | <b>N/A</b>         | Not Changd  | N/A         |
| Sample Status |             |             | <b>ABNORMAL</b>    | SEVERE      | NORMAL      |

**WEAR METALS**

|          | method | limit/base      | current      | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >50 | <b>1</b>     | 5        | <1       |
| Chromium | ppm    | ASTM D5185m >10 | <b>0</b>     | 0        | 0        |
| Nickel   | ppm    | ASTM D5185m >3  | <b>0</b>     | 0        | 0        |
| Titanium | ppm    | ASTM D5185m >3  | <b>0</b>     | 0        | 0        |
| Silver   | ppm    | ASTM D5185m >2  | <b>0</b>     | 0        | 0        |
| Aluminum | ppm    | ASTM D5185m >10 | <b>&lt;1</b> | 0        | 0        |
| Lead     | ppm    | ASTM D5185m >10 | <b>0</b>     | 0        | 0        |
| Copper   | ppm    | ASTM D5185m >50 | <b>9</b>     | 9        | 7        |
| Tin      | ppm    | ASTM D5185m >10 | <b>0</b>     | 0        | 0        |
| Vanadium | ppm    | ASTM D5185m     | <b>0</b>     | 0        | 0        |
| Cadmium  | ppm    | ASTM D5185m     | <b>0</b>     | 0        | 0        |

**ADDITIVES**

|            | method | limit/base     | current      | history1 | history2 |
|------------|--------|----------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m    | <b>0</b>     | 0        | 0        |
| Barium     | ppm    | ASTM D5185m 90 | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185m    | <b>0</b>     | 0        | 0        |
| Manganese  | ppm    | ASTM D5185m    | <b>&lt;1</b> | <1       | 0        |
| Magnesium  | ppm    | ASTM D5185m 90 | <b>0</b>     | 2        | <1       |
| Calcium    | ppm    | ASTM D5185m 2  | <b>0</b>     | <1       | 0        |
| Phosphorus | ppm    | ASTM D5185m    | <b>0</b>     | 3        | 2        |
| Zinc       | ppm    | ASTM D5185m    | <b>0</b>     | 2        | 0        |

**CONTAMINANTS**

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >25  | <b>&lt;1</b> | 0        | 0        |
| Sodium    | ppm    | ASTM D5185m      | <b>2</b>     | 1        | <1       |
| Potassium | ppm    | ASTM D5185m >20  | <b>&lt;1</b> | 0        | 0        |
| Water     | %      | ASTM D6304 >0.05 | <b>0.007</b> | ▲ 0.151  | 0.009    |
| ppm Water | ppm    | ASTM D6304 >500  | <b>71.8</b>  | ▲ 1510   | 90.7     |

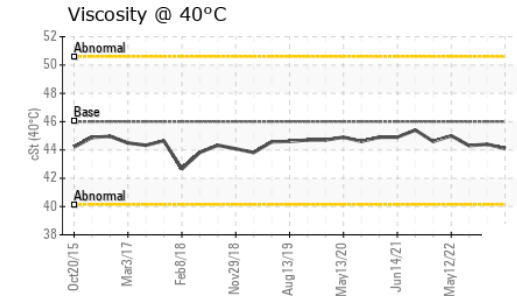
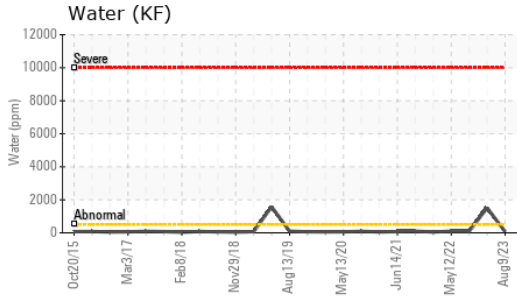
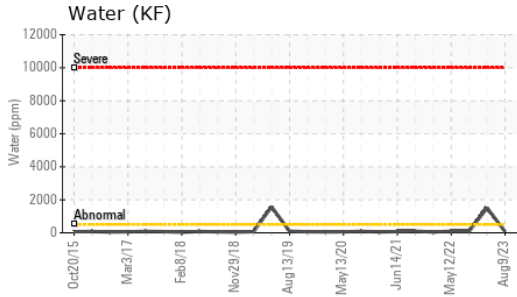
**FLUID CLEANLINESS**

|                 | method       | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|---------|----------|----------|
| Particles >4µm  | ASTM D7647   |            | ---     | ---      | 307      |
| Particles >6µm  | ASTM D7647   | >1300      | ---     | ---      | 89       |
| Particles >14µm | ASTM D7647   | >80        | ---     | ---      | 7        |
| Particles >21µm | ASTM D7647   | >20        | ---     | ---      | 1        |
| Particles >38µm | ASTM D7647   | >4         | ---     | ---      | 0        |
| Particles >71µm | ASTM D7647   | >3         | ---     | ---      | 0        |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13  | ---     | ---      | 15/14/10 |

**FLUID DEGRADATION**

|                  | method   | limit/base     | current     | history1 | history2 |
|------------------|----------|----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.4 | <b>0.36</b> | 0.37     | 0.37     |

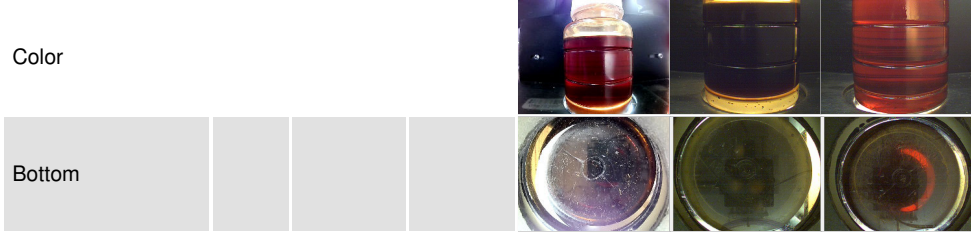
# OIL ANALYSIS REPORT



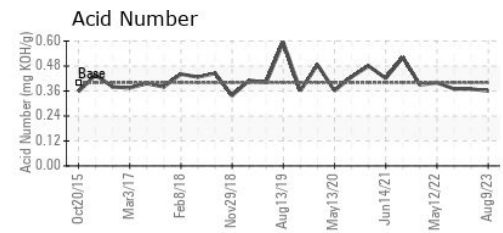
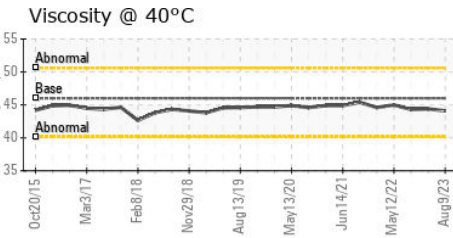
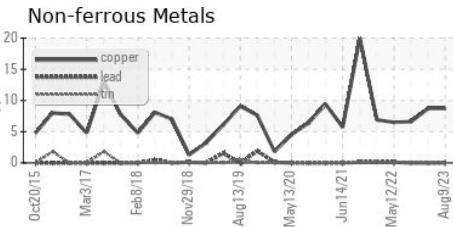
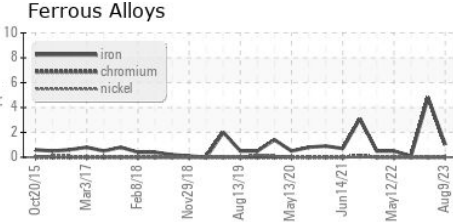
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | ▲ MODER | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | ▲ MODER  | LIGHT    |
| 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      | 0.2%     |
| Free Water       | scalar | *Visual    | NEG     | 10.0     | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 46      | 44.1     | 44.4     |

**SAMPLE IMAGES**



**GRAPHS**



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC124469 **Received** : 16 Oct 2023  
**Lab Number** : 05979614 **Diagnosed** : 18 Oct 2023  
**Unique Number** : 10696909 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2

**POWERS AND SONS LLC**  
 1613 MAGDA DR  
 MONTPELIER, OH  
 US 43543  
 Contact:

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)