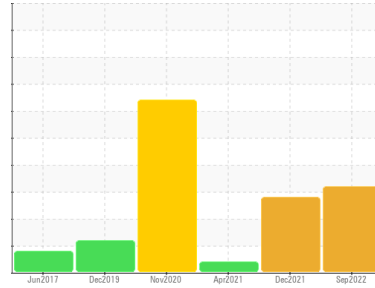


# PROBLEM SUMMARY

Sample Rating Trend



**WATER**



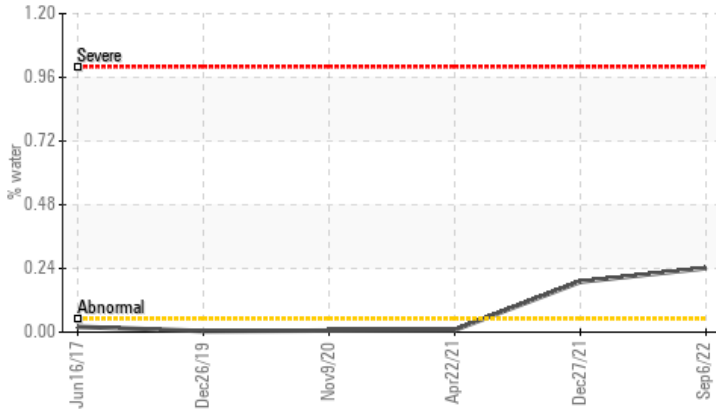
Machine Id  
**KAESER BSD50 5626305 (S/N 1548)**

Component  
**Compressor**

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

## COMPONENT CONDITION SUMMARY

▲ Water



## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. There is too much water present in this sample to perform a particle count. We recommend an early resample in 500 hours to monitor this condition.

## PROBLEMATIC TEST RESULTS

| Sample Status    |        |            |       | <b>ABNORMAL</b> | ABNORMAL | ABNORMAL |
|------------------|--------|------------|-------|-----------------|----------|----------|
| Water            | %      | ASTM D6304 | >0.05 | ▲ <b>0.241</b>  | ▲ 0.190  | 0.008    |
| ppm Water        | ppm    | ASTM D6304 | >500  | ▲ <b>2410</b>   | ▲ 1900   | 86.1     |
| Emulsified Water | scalar | *Visual    | >0.05 | ▲ <b>0.2%</b>   | ▲ 0.2%   | NEG      |
| Free Water       | scalar | *Visual    |       | ▲ <b>1.0</b>    | NEG      | NEG      |

Customer Id: REHCUL  
Sample No.: KCP33363  
Lab Number: 05639064  
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

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   |
|---------------|--------|------|---------|---|
| 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

### 27 Dec 2021 Diag: Don Baldrige

#### WATER



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

[view report](#)



### 22 Apr 2021 Diag: Angela Borella

#### VIS DEBRIS



Oil and 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. All 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](#)



### 09 Nov 2020 Diag: Angela Borella

#### ISO



We recommend that you change the oil. The 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 oil is no longer serviceable due to the presence of contaminants.

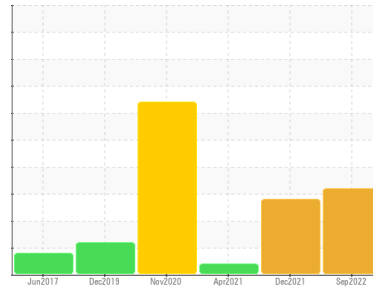
[view report](#)



Machine Id  
**KAESER BSD50 5626305 (S/N 1548)**

Component  
**Compressor**

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



## DIAGNOSIS

### ▲ Recommendation

Oil and filter change at the time of sampling has been noted. There is too much water present in this sample to perform a particle count. We recommend an early resample in 500 hours to monitor this condition.

### Wear

All component wear rates are normal.

### ▲ Contamination

There is a light concentration of water present in the oil. Free water present.

### Fluid Condition

The AN level is acceptable for this fluid.

## SAMPLE INFORMATION

|               | method | limit/base | current            | history 1   | history 2   |
|---------------|--------|------------|--------------------|-------------|-------------|
| Sample Number |        |            | <b>KCP33363</b>    | KCP35230    | KCP32703    |
| Sample Date   |        |            | <b>06 Sep 2022</b> | 27 Dec 2021 | 22 Apr 2021 |
| Machine Age   | hrs    |            | <b>25660</b>       | 23815       | 21293       |
| Oil Age       | hrs    |            | <b>4365</b>        | 0           | 2343        |
| Oil Changed   |        |            | <b>Changed</b>     | Not Changd  | Changed     |
| Sample Status |        |            | <b>ABNORMAL</b>    | ABNORMAL    | ABNORMAL    |

## WEAR METALS

|          | method          | limit/base | current      | history 1 | history 2 |
|----------|-----------------|------------|--------------|-----------|-----------|
| Iron     | ppm ASTM D5185m | >50        | <b>2</b>     | 1         | <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>     | <1        | 0         |
| Aluminum | ppm ASTM D5185m | >10        | <b>&lt;1</b> | 3         | 0         |
| Lead     | ppm ASTM D5185m | >10        | <b>0</b>     | 0         | 0         |
| Copper   | ppm ASTM D5185m | >50        | <b>8</b>     | 10        | 10        |
| Tin      | ppm ASTM D5185m | >10        | <b>&lt;1</b> | 0         | 0         |
| Antimony | ppm ASTM D5185m |            | <b>---</b>   | <1        | 0         |
| Vanadium | ppm ASTM D5185m |            | <b>0</b>     | 0         | 0         |
| Cadmium  | ppm ASTM D5185m |            | <b>0</b>     | 0         | 0         |

## ADDITIVES

|            | method          | limit/base | current      | history 1 | history 2 |
|------------|-----------------|------------|--------------|-----------|-----------|
| Boron      | ppm ASTM D5185m |            | <b>0</b>     | 0         | <1        |
| Barium     | ppm ASTM D5185m | 90         | <b>1</b>     | 0         | 0         |
| Molybdenum | ppm ASTM D5185m |            | <b>0</b>     | 0         | 0         |
| Manganese  | ppm ASTM D5185m |            | <b>&lt;1</b> | 0         | 0         |
| Magnesium  | ppm ASTM D5185m | 90         | <b>&lt;1</b> | 3         | <1        |
| Calcium    | ppm ASTM D5185m | 2          | <b>0</b>     | 0         | 0         |
| Phosphorus | ppm ASTM D5185m |            | <b>3</b>     | 0         | 2         |
| Zinc       | ppm ASTM D5185m |            | <b>4</b>     | 19        | 0         |
| Sulfur     | ppm ASTM D5185m |            | <b>15843</b> | 17207     | 13939     |

## CONTAMINANTS

|           | method          | limit/base | current        | history 1 | history 2 |
|-----------|-----------------|------------|----------------|-----------|-----------|
| Silicon   | ppm ASTM D5185m | >25        | <b>0</b>       | 0         | <1        |
| Sodium    | ppm ASTM D5185m |            | <b>5</b>       | 3         | 0         |
| Potassium | ppm ASTM D5185m | >20        | <b>&lt;1</b>   | 2         | <1        |
| Water     | % ASTM D6304    | >0.05      | <b>▲ 0.241</b> | ▲ 0.190   | 0.008     |
| ppm Water | ppm ASTM D6304  | >500       | <b>▲ 2410</b>  | ▲ 1900    | 86.1      |

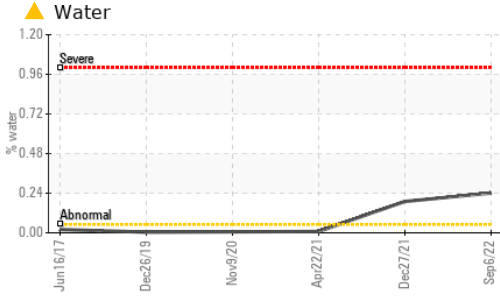
## FLUID CLEANLINESS

|                 | method       | limit/base | current    | history 1 | history 2 |
|-----------------|--------------|------------|------------|-----------|-----------|
| Particles >4µm  | ASTM D7647   |            | <b>---</b> | ---       | ---       |
| Particles >6µm  | ASTM D7647   | >1300      | <b>---</b> | ---       | ---       |
| Particles >14µm | ASTM D7647   | >80        | <b>---</b> | ---       | ---       |
| Particles >21µm | ASTM D7647   | >20        | <b>---</b> | ---       | ---       |
| Particles >38µm | ASTM D7647   | >4         | <b>---</b> | ---       | ---       |
| Particles >71µm | ASTM D7647   | >3         | <b>---</b> | ---       | ---       |
| Oil Cleanliness | ISO 4406 (c) | >17/13     | <b>---</b> | ---       | ---       |

## FLUID DEGRADATION

|                  | method              | limit/base | current     | history 1 | history 2 |
|------------------|---------------------|------------|-------------|-----------|-----------|
| Acid Number (AN) | mg KOH/g ASTM D8045 | 0.4        | <b>0.33</b> | 0.32      | 0.379     |

# OIL ANALYSIS REPORT



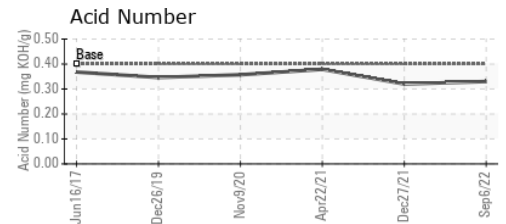
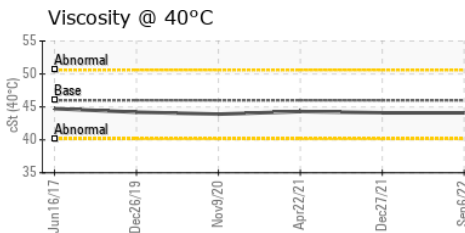
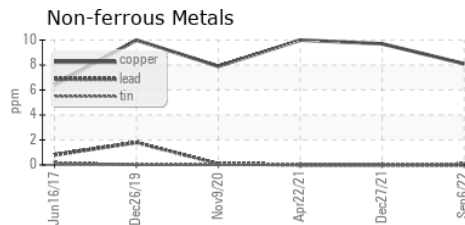
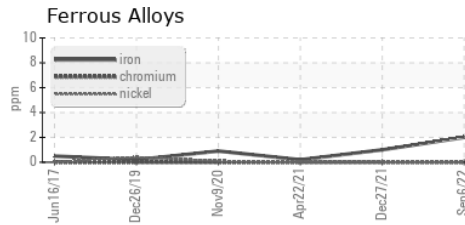
| VISUAL           | method | limit/base | current | history 1     | history 2 |
|------------------|--------|------------|---------|---------------|-----------|
| White Metal      | scalar | *Visual    | NONE    | NONE          | NONE      |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE          | NONE      |
| Precipitate      | scalar | *Visual    | NONE    | NONE          | NONE      |
| Silt             | scalar | *Visual    | NONE    | NONE          | NONE      |
| Debris           | scalar | *Visual    | NONE    | <b>LIGHT</b>  | ▲ MODER   |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE          | NONE      |
| Appearance       | scalar | *Visual    | NORML   | <b>NORML</b>  | ▲ HAZY    |
| Odor             | scalar | *Visual    | NORML   | <b>NORML</b>  | NORML     |
| Emulsified Water | scalar | *Visual    | >0.05   | ▲ <b>0.2%</b> | ▲ 0.2%    |
| Free Water       | scalar | *Visual    |         | ▲ <b>1.0</b>  | NEG       |

| FLUID PROPERTIES | method | limit/base | current | history 1   | history 2 |
|------------------|--------|------------|---------|-------------|-----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 46      | <b>44.1</b> | 44.1      |

| SAMPLE IMAGES | method | limit/base | current | history 1 | history 2 |
|---------------|--------|------------|---------|-----------|-----------|
|---------------|--------|------------|---------|-----------|-----------|



## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCP33363 **Received** : 12 Sep 2022  
**Lab Number** : 05639064 **Diagnosed** : 14 Sep 2022  
**Unique Number** : 10128594 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**REHAU CONSTRUCTION LLC**  
 2424 INDUSTRIAL DR SW  
 CULLMAN, AL  
 USA 35055  
 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)

T:  
F: