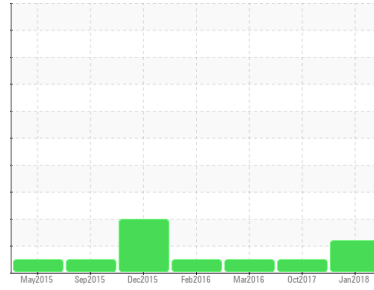




# PROBLEM SUMMARY

## Sample Rating Trend

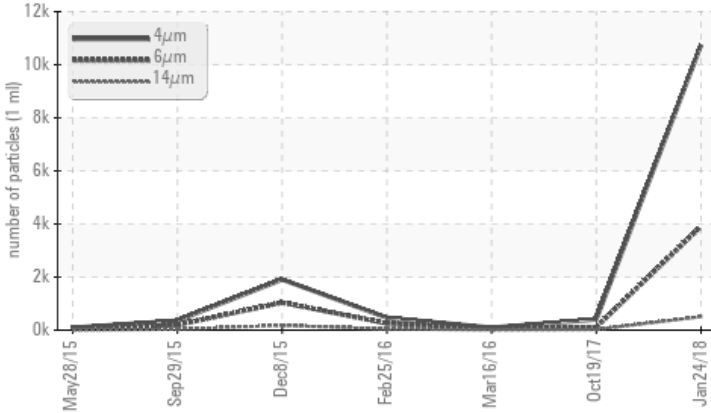
ISO



Area  
**[9381690]**  
 Machine Id  
**KAESER C-1R (S/N 1022)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

| Sample Status   |              |           | ABNORMAL          | NORMAL   | NORMAL   |
|-----------------|--------------|-----------|-------------------|----------|----------|
| Particles >6µm  | ASTM D7647   | >1300     | ▲ <b>3906</b>     | 112      | 50       |
| Particles >14µm | ASTM D7647   | >80       | ▲ <b>509</b>      | 21       | 8        |
| Particles >21µm | ASTM D7647   | >20       | ▲ <b>118</b>      | 10       | 2        |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13 | ▲ <b>21/19/16</b> | 16/14/12 | 14/13/10 |

Customer Id: WESLONWC  
 Sample No.: WCI2327649  
 Lab Number: 04413726  
 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 Filter | MISSED | Jun 27 2018 | ?       | We recommend you service the filters on this component. |

## HISTORICAL DIAGNOSIS

### 19 Oct 2017 Diag: Don Baldrige

NORMAL



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

view report



### 16 Mar 2016 Diag: Jonathan Hester

NORMAL



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

view report



### 25 Feb 2016 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 is acceptable. There is no indication of any contamination in the component. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

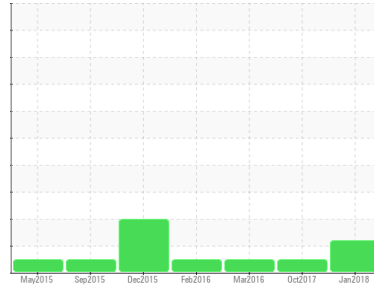
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Area  
**[9381690]**  
 Machine Id  
**KAESER C-1R (S/N 1022)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## DIAGNOSIS

### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

There is a high 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            | history 1   | history 2   |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | <b>WCI2327649</b>  | WCI2317638  | WC03963555  |
| Sample Date   | Client Info | <b>24 Jan 2018</b> | 19 Oct 2017 | 16 Mar 2016 |
| Machine Age   | hrs         | <b>31658</b>       | 29355       | 16335       |
| Oil Age       | hrs         | <b>0</b>           | 0           | 0           |
| Oil Changed   | Client Info | <b>N/A</b>         | N/A         | N/A         |
| Sample Status |             | <b>ABNORMAL</b>    | NORMAL      | NORMAL      |

## WEAR METALS

| method   | limit/base | current         | history 1 | history 2 |    |
|----------|------------|-----------------|-----------|-----------|----|
| Iron     | ppm        | ASTM D5185m >50 | <1        | 0         | <1 |
| 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 | <1        | 0         | 0  |
| Lead     | ppm        | ASTM D5185m >10 | 0         | <1        | 0  |
| Copper   | ppm        | ASTM D5185m >50 | 5         | 10        | 5  |
| Tin      | ppm        | ASTM D5185m >10 | 0         | <1        | <1 |
| Antimony | ppm        | ASTM D5185m     | 0         | 0         | 0  |
| Vanadium | ppm        | ASTM D5185m     | 0         | 0         | 0  |
| Cadmium  | ppm        | ASTM D5185m     | 0         | 0         | 0  |

## ADDITIVES

| method     | limit/base | current        | history 1 | history 2 |       |
|------------|------------|----------------|-----------|-----------|-------|
| Boron      | ppm        | ASTM D5185m    | 1         | 0         | 0     |
| Barium     | ppm        | ASTM D5185m 90 | 19        | 0         | 0     |
| Molybdenum | ppm        | ASTM D5185m    | 0         | <1        | <1    |
| Manganese  | ppm        | ASTM D5185m    | <1        | <1        | <1    |
| Magnesium  | ppm        | ASTM D5185m 90 | 20        | 0         | 2     |
| Calcium    | ppm        | ASTM D5185m 2  | 0         | 0         | 0     |
| Phosphorus | ppm        | ASTM D5185m    | 47        | <1        | 46    |
| Zinc       | ppm        | ASTM D5185m    | 0         | 0         | 72    |
| Sulfur     | ppm        | ASTM D5185m    | 13884     | 4636      | 19109 |

## CONTAMINANTS

| method    | limit/base | current         | history 1 | history 2 |   |
|-----------|------------|-----------------|-----------|-----------|---|
| Silicon   | ppm        | ASTM D5185m >25 | <1        | <1        | 7 |
| Sodium    | ppm        | ASTM D5185m     | 2         | 0         | 1 |
| Potassium | ppm        | ASTM D5185m >20 | 2         | 0         | 0 |

## FLUID CLEANLINESS

| method          | limit/base             | current           | history 1 | history 2 |
|-----------------|------------------------|-------------------|-----------|-----------|
| Particles >4µm  | ASTM D7647             | <b>10741</b>      | 403       | 93        |
| Particles >6µm  | ASTM D7647 >1300       | <b>▲ 3906</b>     | 112       | 50        |
| Particles >14µm | ASTM D7647 >80         | <b>▲ 509</b>      | 21        | 8         |
| Particles >21µm | ASTM D7647 >20         | <b>▲ 118</b>      | 10        | 2         |
| Particles >38µm | ASTM D7647 >4          | <b>4</b>          | 4         | 0         |
| Particles >71µm | ASTM D7647 >3          | <b>0</b>          | 3         | 0         |
| Oil Cleanliness | ISO 4406 (c) >--/17/13 | <b>▲ 21/19/16</b> | 16/14/12  | 14/13/10  |

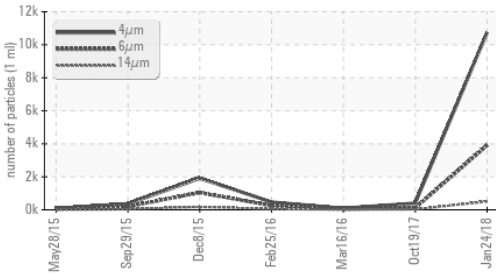
## FLUID DEGRADATION

| method           | limit/base | current        | history 1    | history 2 |       |
|------------------|------------|----------------|--------------|-----------|-------|
| Acid Number (AN) | mg KOH/g   | ASTM D8045 0.4 | <b>0.400</b> | 0.378     | 0.430 |

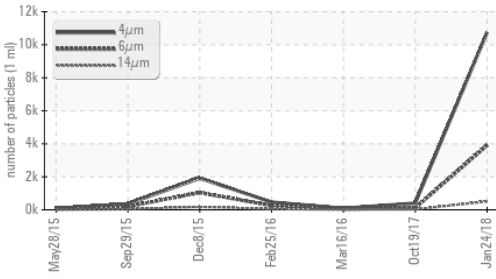


# OIL ANALYSIS REPORT

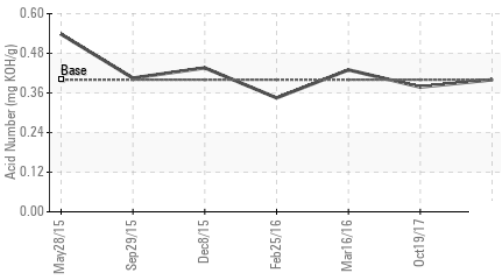
▲ Particle Trend



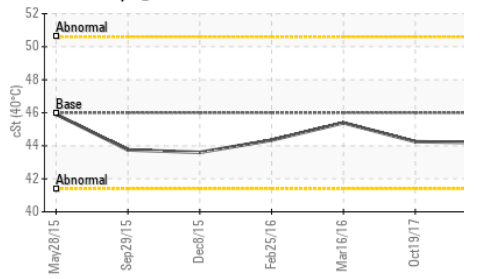
▲ Particle Trend



Acid Number



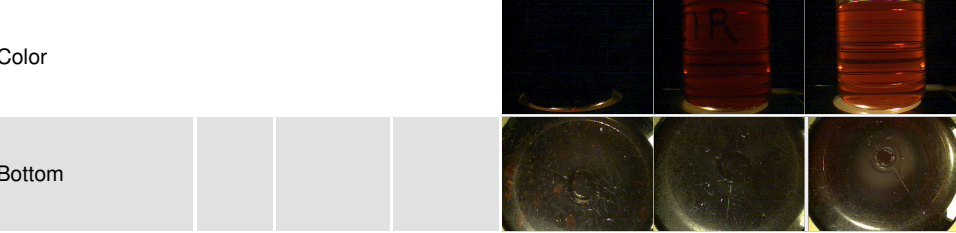
Viscosity @ 40°C



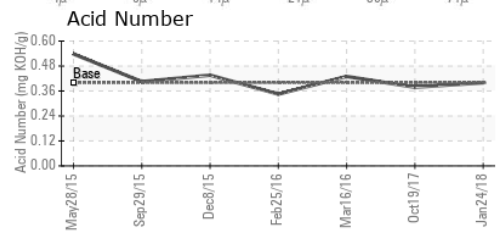
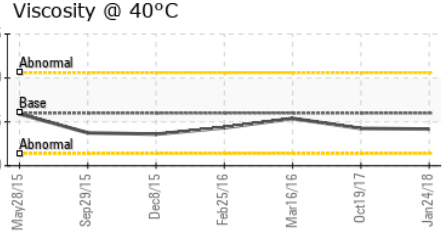
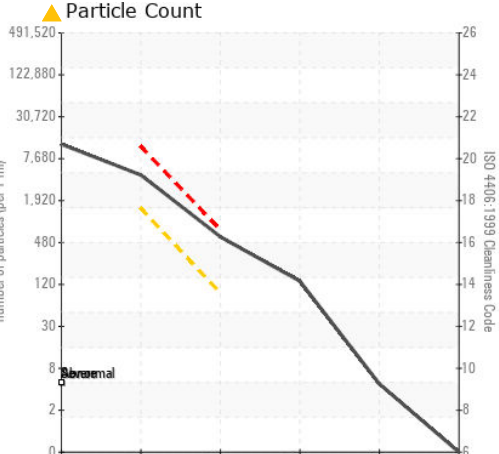
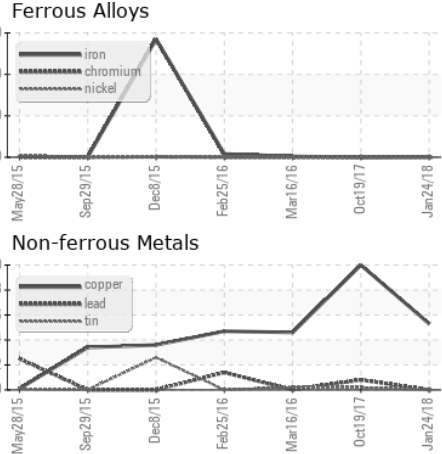
| VISUAL           | method | limit/base | current | history 1    | history 2 |       |
|------------------|--------|------------|---------|--------------|-----------|-------|
| White Metal      | scalar | *Visual    | NONE    | <b>LIGHT</b> | NONE      | NONE  |
| Yellow Metal     | scalar | *Visual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

| FLUID PROPERTIES | method | limit/base   | current      | history 1 | history 2 |
|------------------|--------|--------------|--------------|-----------|-----------|
| Visc @ 40°C      | cSt    | ASTM D445 46 | <b>44.18</b> | 44.25     | 45.39     |

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



## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC12327649 **Received** : 22 Feb 2018  
**Lab Number** : **04413726** **Diagnosed** : 23 Feb 2018  
**Unique Number** : 8107430 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: PrtCount )

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)

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