

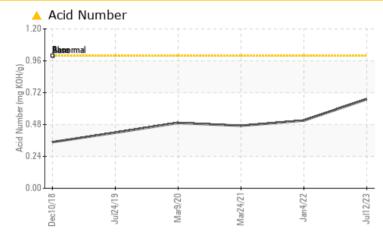
## **PROBLEM SUMMARY**

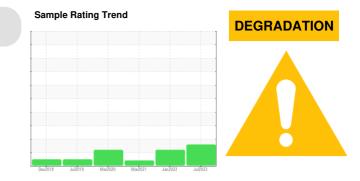
KAESER BSD 50 6218298 (S/N 1810)

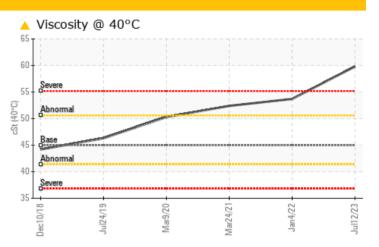
Compressor

KAESER SIGMA (OEM) M-460 (--- GAL)

### COMPONENT CONDITION SUMMARY







### RECOMMENDATION

The filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition. Please note that this is a corrected copy for laboratory data updates.

| PROBLEMATIC ' | TEST RESULTS |
|---------------|--------------|
| THOBLEMATIO   |              |

| Sample Status    |          |            |     | ABNORMAL      | ABNORMAL     | ABNORMAL |
|------------------|----------|------------|-----|---------------|--------------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.0 | <b>6</b> 0.67 | 0.51         | 0.471    |
| Visc @ 40°C      | cSt      | ASTM D445  | 45  | <b>6</b> 59.8 | <b>5</b> 3.7 | ▲ 52.4   |

Customer Id: ARADAL Sample No.: KCPA005616 Lab Number: 05903314 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 <u>jhester@wearcheckusa.com</u>

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

### **RECOMMENDED ACTIONS**

There are no recommended actions for this sample.

### **HISTORICAL DIAGNOSIS**

### 04 Jan 2022 Diag: Jonathan Hester



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 oil viscosity is higher than normal. The AN level is acceptable for this fluid.

#### 24 Mar 2021 Diag: Jonathan Hester



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 no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable. The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

09 Mar 2020 Diag: Angela Borella

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 moderate 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.



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## **OIL ANALYSIS REPORT**

### Machine Id KAESER BSD 50 6218298 (S/N 1810) Component

Compressor Fluic

KAESER SIGMA (OEM) M-460 (--- GAL)

### DIAGNOSIS

### Recommendation

The filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition. Please note that this is a corrected copy for laboratory data updates.

### Wear

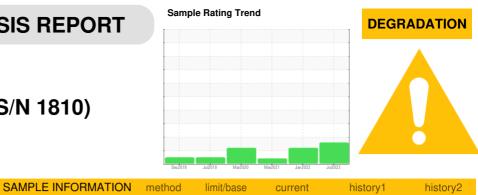
All component wear rates are normal.

### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

### Fluid Condition

The oil viscosity is higher than normal. The AN level is at the top-end of the recommended limit.



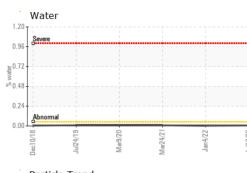
| SAMPLE INFORM    | MATION   | method       | limit/base | current     | history1    | history2    |
|------------------|----------|--------------|------------|-------------|-------------|-------------|
| Sample Number    |          | Client Info  |            | KCPA005616  | KCP35402    | KCP10857    |
| Sample Date      |          | Client Info  |            | 12 Jul 2023 | 04 Jan 2022 | 24 Mar 2021 |
| Machine Age      | hrs      | Client Info  |            | 28037       | 18796       | 14175       |
| Oil Age          | hrs      | Client Info  |            | 0           | 4621        | 4137        |
| Oil Changed      |          | Client Info  |            | N/A         | Changed     | Changed     |
| Sample Status    |          |              |            | ABNORMAL    | ABNORMAL    | ABNORMAL    |
| WEAR METALS      |          | method       | limit/base | current     | history1    | history2    |
| Iron             | ppm      | ASTM D5185m  | >50        | 0           | <1          | 0           |
| 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         | <1          | 0           | <1          |
| Aluminum         | ppm      | ASTM D5185m  | >10        | 0           | 0           | 0           |
| Lead             | ppm      | ASTM D5185m  | >10        | 0           | 0           | 0           |
| Copper           | ppm      | ASTM D5185m  | >50        | 5           | 9           | 8           |
| Tin              | ppm      | ASTM D5185m  | >10        | 0           | <1          | 0           |
| Antimony         | ppm      | ASTM D5185m  |            |             | 0           | <1          |
| 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           | <1          | 9           |
| Barium           | ppm      | ASTM D5185m  | 90         | 1           | 0           | 0           |
| Molybdenum       | ppm      | ASTM D5185m  | 0          | 0           | 0           | 0           |
| Manganese        | ppm      | ASTM D5185m  |            | 0           | 0           | 0           |
| Magnesium        | ppm      | ASTM D5185m  | 100        | <1          | 0           | <1          |
| Calcium          | ppm      | ASTM D5185m  | 0          | 0           | 0           | 0           |
| Phosphorus       | ppm      | ASTM D5185m  | 0          | 0           | 4           | 4           |
| Zinc             | ppm      | ASTM D5185m  | 0          | 0           | 0           | 0           |
| Sulfur           | ppm      | ASTM D5185m  | 23500      | 11153       | 16334       | 16656       |
| CONTAMINANTS     |          | method       | limit/base | current     | history1    | history2    |
| Silicon          | ppm      | ASTM D5185m  | >25        | 0           | <1          | 1           |
| Sodium           | ppm      | ASTM D5185m  | 220        | 0           | 0           | 2           |
| Potassium        | ppm      | ASTM D5185m  | >20        | <1          | 0           | 0           |
| Water            | %        | ASTM D6304   |            | 0.006       | 0.003       | 0.008       |
| ppm Water        | ppm      |              | >500       | 65.2        | 36.9        | 85.2        |
| FLUID CLEANLIN   | IESS     | method       | limit/base | current     | history1    | history2    |
| Particles >4µm   |          | ASTM D7647   |            | 1694        | 34340       | 2225        |
| Particles >6µm   |          | ASTM D7647   | >1300      | 496         | ▲ 5654      | 695         |
| Particles >14µm  |          | ASTM D7647   | >80        | 40          | <u> </u>    | 67          |
| Particles >21µm  |          | ASTM D7647   | >20        | 12          | 10          | 21          |
| Particles >38µm  |          | ASTM D7647   | >4         | 0           | 0           | 1           |
| Particles >71µm  |          | ASTM D7647   |            | 0           | 0           | 0           |
| Oil Cleanliness  |          | ISO 4406 (c) | >/17/13    | 18/16/12    | ▲ 20/14     | 17/13       |
| FLUID DEGRADA    | ATION    | method       | limit/base | current     | history1    | history2    |
| Acid Number (AN) | mg KOH/g | ASTM D8045   | 1.0        | <b>0.67</b> | 0.51        | 0.471       |
|                  |          |              |            |             |             |             |

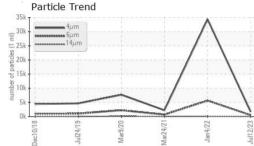
Report Id: ARADAL [WUSCAR] 05903314 (Generated: 07/24/2023 13:17:17) Rev: 1

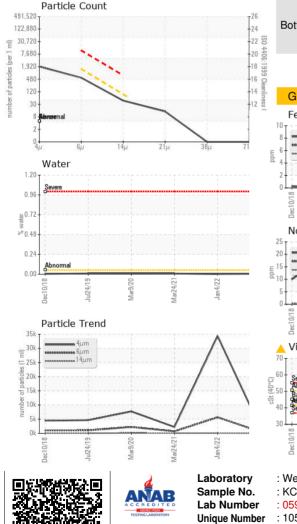
Contact/Location: ? ? - ARADAL



# **OIL ANALYSIS REPORT**





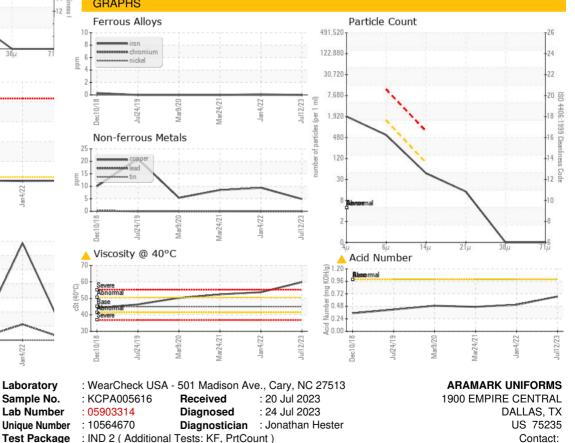


| VISUAL           |        | method    | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual   | NONE       | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual   | NORML      | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual   | NORML      | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual   | >0.05      | NEG     | NEG      | NEG      |
| Free Water       | scalar | *Visual   |            | NEG     | NEG      | NEG      |
| FLUID PROPERT    | IES    | method    | limit/base | current | history1 | history2 |
| Visc @ 40°C      | cSt    | ASTM D445 | 45         | ▲ 59.8  | ▲ 53.7   | ▲ 52.4   |
| SAMPLE IMAGES    | 6      | method    | limit/base | current | history1 | history2 |
| Color            |        |           |            | E       |          |          |



Bottom





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)

Certificate L2367