

### **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

6941137 (S/N 1316) Component Compressor

# KAESER SIGMA (OEM) S-460 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

Fluid

All component wear rates are normal.

#### Contamination

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

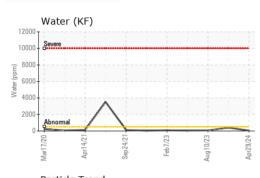
#### Fluid Condition

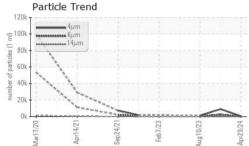
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

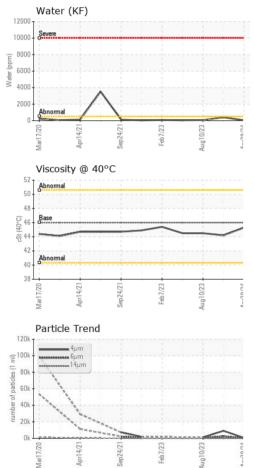
| SAMPLE INFORM     | 1ATION   | method                      | limit/base | current     | history1    | history2    |
|-------------------|----------|-----------------------------|------------|-------------|-------------|-------------|
| Sample Number     |          | Client Info                 |            | KC106067    | KC111376    | KC125400    |
| Sample Date       |          | Client Info                 |            | 29 Apr 2024 | 11 Sep 2023 | 10 Aug 2023 |
| Machine Age       | hrs      | Client Info                 |            | 23578       | 20831       | 19426       |
| Oil Age           | hrs      | Client Info                 |            | 7004        | 0           | 13671       |
| Oil Changed       |          | Client Info                 |            | Changed     | Not Changd  | Changed     |
| Sample Status     |          |                             |            | NORMAL      | ATTENTION   | NORMAL      |
| WEAR METALS       |          | method                      | limit/base | current     | history1    | history2    |
| Iron              | ppm      | ASTM D5185m                 | >50        | 0           | 0           | 0           |
| Chromium          | ppm      | ASTM D5185m                 | >10        | 0           | <1          | 0           |
| Nickel            | ppm      | ASTM D5185m                 | >3         | 0           | 0           | 0           |
| Titanium          | ppm      | ASTM D5185m                 |            | 0           | 0           | 0           |
| Silver            | ppm      | ASTM D5185m                 | >2         | 0           | 0           | 0           |
| Aluminum          | ppm      |                             |            | 0           | 2           | 0           |
| Lead              | ppm      | ASTM D5185m                 | >10        | 0           | 0           | <1          |
| Copper            | ppm      | ASTM D5185m                 |            | 8           | 2           | 7           |
| Tin               | ppm      | ASTM D5185m                 | >10        | <1          | 0           | 0           |
| Vanadium          | ppm      | ASTM D5185m                 | 210        | 0           | 0           | 0           |
| Cadmium           | ppm      | ASTM D5185m                 |            | 0           | 0           | 0           |
| ADDITIVES         |          | method                      | limit/base | current     | history1    | history2    |
| Boron             | ppm      | ASTM D5185m                 |            | 0           | 0           | 0           |
| Barium            | ppm      | ASTM D5185m                 | 90         | 0           | 73          | 0           |
| Molybdenum        | ppm      | ASTM D5185m                 |            | 0           | 0           | 0           |
| Manganese         | ppm      | ASTM D5185m                 |            | <1          | 0           | 0           |
| Magnesium         | ppm      | ASTM D5185m                 | 90         | 0           | 81          | 2           |
| Calcium           | ppm      | ASTM D5185m                 |            | 0           | 2           | 0           |
| Phosphorus        | ppm      | ASTM D5185m                 | -          | 2           | _<br>44     | 4           |
| Zinc              | ppm      | ASTM D5185m                 |            | 0           | 0           | 0           |
| CONTAMINANTS      |          | method                      | limit/base | current     | history1    | history2    |
|                   |          |                             |            | <1          | 0           | <1          |
| Silicon<br>Sodium | ppm      | ASTM D5185m                 | >25        | 2           | 0           | < 1         |
| Potassium         | ppm      | ASTM D5185m<br>ASTM D5185m  | >20        | 2<br><1     | <1          | <1          |
| Water             | ppm      | ASTM D5165III<br>ASTM D6304 |            | <1<br>0.004 | 0.039       | 0.007       |
| ppm Water         | %        | ASTM D6304<br>ASTM D6304    | >0.05      | 0.004<br>50 | 393         | 70.4        |
| FLUID CLEANLIN    | ppm      |                             | limit/base |             | history1    | history2    |
|                   | ESS      | method                      | limit/base | current     |             |             |
| Particles >4µm    |          | ASTM D7647                  | 1000       | 563         | 9098        | 1217        |
| Particles >6µm    |          | ASTM D7647                  | >1300      | 186         | 2418        | 427         |
| Particles >14µm   |          | ASTM D7647                  | >80        | 4           | 149         | 45          |
| Particles >21µm   |          | ASTM D7647                  |            | 0           | 40          | 19          |
| Particles >38µm   |          | ASTM D7647                  | >4         | 0           | 1           | 2           |
| Particles >71µm   |          | ASTM D7647                  | >3         | 0           | 0           | 0           |
| Oil Cleanliness   |          | ISO 4406 (c)                | >/17/13    | 16/15/9     | 20/18/14    | 17/16/13    |
| FLUID DEGRADA     | TION     | method                      | limit/base | current     | history1    | history2    |
| Acid Number (AN)  | mg KOH/g | ASTM D8045                  | 0.4        | 0.34        | 0.36        | 0.30        |



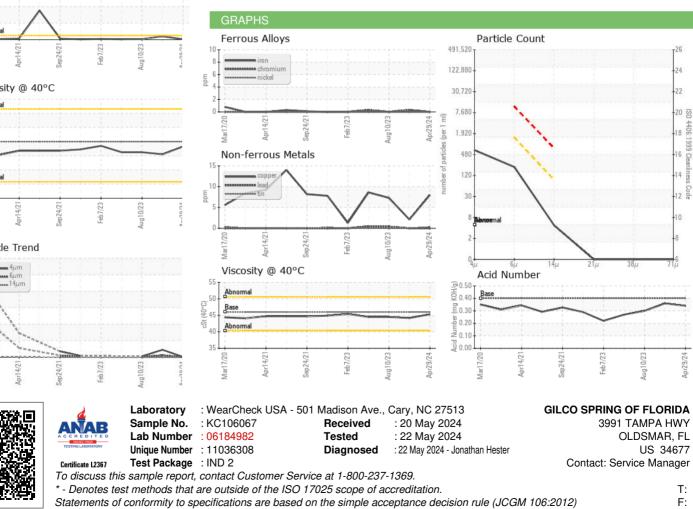
## **OIL ANALYSIS REPORT**







| 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 | 46         | 45.3    | 44.2     | 44.5     |
| SAMPLE IMAGES    | 3      | method    | limit/base | current | history1 | history2 |
| Color            |        |           |            |         |          |          |
| Bottom           |        |           |            |         |          |          |



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Contact/Location: Service Manager - GILOLD Page 2 of 2