

# **OIL ANALYSIS REPORT**

#### Sample Rating Trend



# KAESER SM 10T 4359141 (S/N 1081)

Compressor

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

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

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

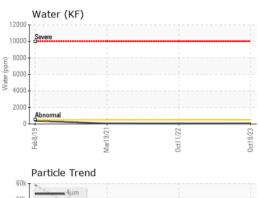
# Fluid Condition

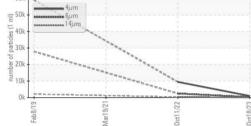
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

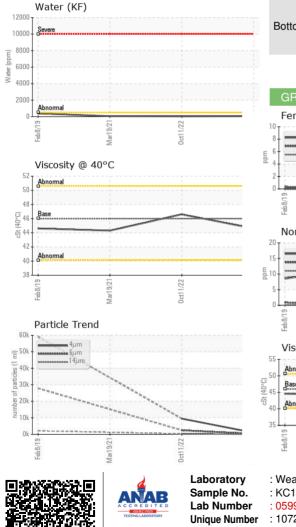
| SAMPLE INFORM    | <b>IATION</b> | method       | limit/base | current     | history1      | history2    |
|------------------|---------------|--------------|------------|-------------|---------------|-------------|
| Sample Number    |               | Client Info  |            | KC125940    | KC106230      | KC89944     |
| Sample Date      |               | Client Info  |            | 18 Oct 2023 | 11 Oct 2022   | 19 Mar 2021 |
| Machine Age      | hrs           | Client Info  |            | 32217       | 29407         | 24625       |
| Oil Age          | hrs           | Client Info  |            | 0           | 4882          | 5770        |
| Oil Changed      |               | Client Info  |            | N/A         | Changed       | Changed     |
| Sample Status    |               |              |            | NORMAL      | ABNORMAL      | ABNORMAL    |
| WEAR METALS      |               | method       | limit/base | current     | history1      | history2    |
| Iron             | ppm           | ASTM D5185m  | >50        | 0           | 0             | 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         | 0           | 0             | 0           |
| Aluminum         | ppm           | ASTM D5185m  | >10        | 0           | 0             | 0           |
| Lead             | ppm           | ASTM D5185m  | >10        | 0           | 0             | 0           |
| Copper           | ppm           | ASTM D5185m  |            | 17          | 13            | 12          |
| Tin              | ppm           |              | >10        | 0           | 0             | 0           |
| Antimony         | ppm           | ASTM D5185m  |            |             |               | 0           |
| Vanadium         | ppm           | ASTM D5185m  |            | 0           | 0             | 0           |
| Cadmium          | ppm           | ASTM D5185m  |            | 0           | 0             | 0           |
|                  | ppm           |              | 11 11 11   | -           |               |             |
| ADDITIVES        |               | method       | limit/base | current     | history1      | history2    |
| Boron            | ppm           | ASTM D5185m  |            | 0           | 0             | <1          |
| Barium           | ppm           | ASTM D5185m  | 90         | 0           | 0             | 0           |
| Molybdenum       | ppm           | ASTM D5185m  |            | 0           | 0             | 0           |
| Manganese        | ppm           | ASTM D5185m  |            | 0           | 0             | 0           |
| Magnesium        | ppm           | ASTM D5185m  | 90         | <1          | 0             | <1          |
| Calcium          | ppm           | ASTM D5185m  | 2          | <1          | 0             | 0           |
| Phosphorus       | ppm           | ASTM D5185m  |            | <1          | 2             | 2           |
| Zinc             | ppm           | ASTM D5185m  |            | 0           | 0             | 0           |
| CONTAMINANTS     | 5             | method       | limit/base | current     | history1      | history2    |
| Silicon          | ppm           | ASTM D5185m  | >25        | <1          | 2             | 1           |
| Sodium           | ppm           | ASTM D5185m  |            | 0           | 0             | 0           |
| Potassium        | ppm           | ASTM D5185m  | >20        | <1          | 0             | 0           |
| Water            | %             | ASTM D6304   | >0.05      | 0.005       | 0.004         | 0.006       |
| ppm Water        | ppm           | ASTM D6304   | >500       | 58.5        | 40.5          | 60.6        |
| FLUID CLEANLIN   | IESS          | method       | limit/base | current     | history1      | history2    |
| Particles >4µm   |               | ASTM D7647   |            | 954         | 9507          |             |
| Particles >6µm   |               | ASTM D7647   | >1300      | 248         | <b>4</b> 2431 |             |
| Particles >14µm  |               | ASTM D7647   | >80        | 26          | <b>A</b> 302  |             |
| Particles >21µm  |               | ASTM D7647   | >20        | 4           | <b>A</b> 84   |             |
| Particles >38µm  |               | ASTM D7647   | >4         | 0           | <b>1</b> 2    |             |
| Particles >71µm  |               | ASTM D7647   | >3         | 0           | 1             |             |
| Oil Cleanliness  |               | ISO 4406 (c) | >/17/13    | 17/15/12    | ▲ 20/18/15    |             |
| FLUID DEGRADA    |               | method       | limit/base | current     | history1      | history2    |
| Acid Number (AN) | mg KOH/g      | ASTM D8045   | 0.4        | 0.33        | 0.44          | 0.277       |
|                  |               |              |            |             |               |             |



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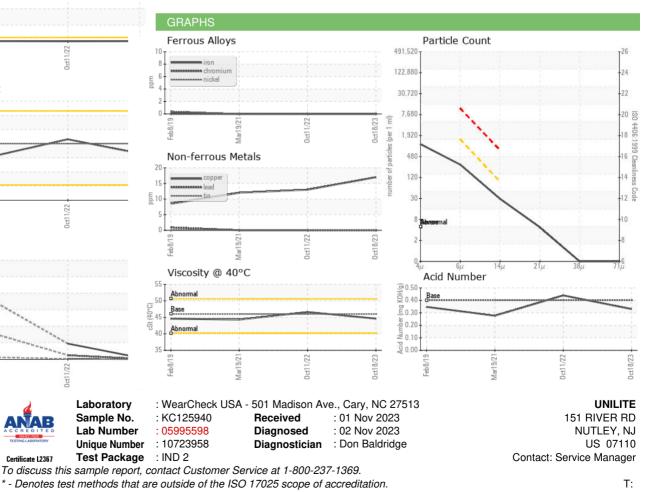






| VISUAL           |        | method    |            |  |          | history2   |
|------------------|--------|-----------|------------|--|----------|--|
| White Metal      | scalar | *Visual   | NONE       | NONE   | NONE     | NONE   |
| Yellow Metal     | scalar | *Visual   | NONE       | NONE   | NONE     | NONE   |
| Precipitate      | scalar | *Visual   | NONE       | NONE   | NONE     | NONE   |
| Silt             | scalar | *Visual   | NONE       | NONE   | NONE     | NONE   |
| Debris           | scalar | *Visual   | NONE       | NONE   | LIGHT    | 🔺 MODER  |
| 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         | 44.6   | 46.6     | 44.3   |
| SAMPLE IMAGES    | S      | method    | limit/base | current  | history1 | history2   |
| Color            |        |           |            |  |          |  |
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Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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Contact/Location: Service Manager - UNINUT