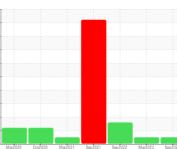


## **OIL ANALYSIS REPORT**

Sample Rating Trend



NORMAL

# KAESER 7066409

### 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

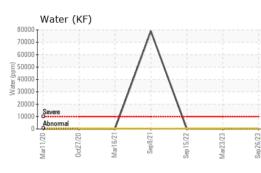
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

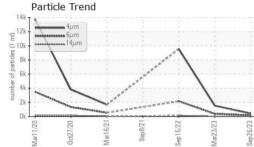
| SAMPLE INFORM   | IATION | method       | limit/base | current     | history1    | history2          |
|-----------------|--------|--------------|------------|-------------|-------------|-------------------|
| Sample Number   |        | Client Info  |            | KC110982    | KC103867    | KC103414          |
| Sample Date     |        | Client Info  |            | 26 Sep 2023 | 23 Mar 2023 | 15 Sep 2022       |
| Machine Age     | hrs    | Client Info  |            | 16122       | 13871       | 11612             |
| Oil Age         | hrs    | Client Info  |            | 1500        | 5905        | 1840              |
| Oil Changed     |        | Client Info  |            | Not Changd  | Changed     | Not Changd        |
| Sample Status   |        |              |            | NORMAL      | NORMAL      | ATTENTION         |
| 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         | <1          | 0           | 0                 |
| Titanium        | ppm    | ASTM D5185m  | >3         | 0           | 0           | 0                 |
| Silver          | ppm    | ASTM D5185m  | >2         | 0           | 0           | 0                 |
| Aluminum        | ppm    | ASTM D5185m  | >10        | <1          | <1          | <1                |
| Lead            | ppm    | ASTM D5185m  | >10        | 0           | 0           | 0                 |
| Copper          | ppm    | ASTM D5185m  | >50        | <1          | <1          | <1                |
| Tin             | ppm    | ASTM D5185m  | >10        | 0           | 0           | 0                 |
| Antimony        | ppm    | ASTM D5185m  |            |             |             |                   |
| 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           | 0                 |
| Barium          | ppm    | ASTM D5185m  | 90         | 37          | 14          | 21                |
| Molybdenum      | ppm    | ASTM D5185m  |            | 0           | 0           | 0                 |
| Manganese       | ppm    | ASTM D5185m  |            | 0           | <1          | 0                 |
| Magnesium       | ppm    | ASTM D5185m  | 90         | 85          | 82          | 69                |
| Calcium         | ppm    | ASTM D5185m  | 2          | 2           | 3           | 2                 |
| Phosphorus      | ppm    | ASTM D5185m  |            | 0           | 2           | 12                |
| Zinc            | ppm    | ASTM D5185m  |            | 0           | 3           | 3                 |
| CONTAMINANTS    |        | method       | limit/base | current     | history1    | history2          |
| Silicon         | ppm    | ASTM D5185m  | >25        | <1          | 2           | <1                |
| Sodium          | ppm    | ASTM D5185m  |            | 16          | 20          | 11                |
| Potassium       | ppm    | ASTM D5185m  | >20        | 4           | 4           | 4                 |
| Water           | %      | ASTM D6304   | >0.05      | 0.029       | 0.019       | 0.025             |
| ppm Water       | ppm    | ASTM D6304   | >500       | 293.9       | 196.1       | 259.8             |
| FLUID CLEANLIN  | ESS    | method       | limit/base | current     | history1    | history2          |
| Particles >4µm  |        | ASTM D7647   |            | 425         | 1544        | 9545              |
| Particles >6µm  |        | ASTM D7647   | >1300      | 179         | 384         | <b>1</b> 2170     |
| Particles >14µm |        | ASTM D7647   | >80        | 19          | 20          | <b>1</b> 36       |
| Particles >21µm |        | ASTM D7647   | >20        | 3           | 5           | <mark>▲</mark> 38 |
| Particles >38µm |        | ASTM D7647   | >4         | 0           | 0           | 3                 |
| Particles >71µm |        | ASTM D7647   | >3         | 0           | 0           | 0                 |
| Oil Cleanliness |        | ISO 4406 (c) | >/17/13    | 16/15/11    | 18/16/11    | 🔺 20/18/14        |
|                 |        |              |            |             |             |                   |
| FLUID DEGRADA   | TION   | method       | limit/base | current     | history1    | history2          |

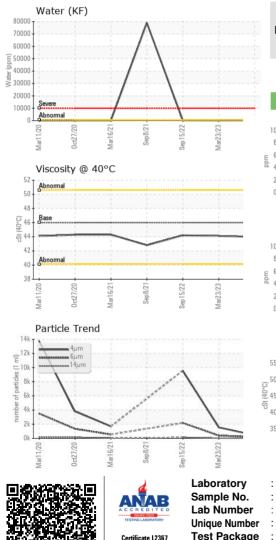
Contact/Location: Service Manager - QVCBET



## **OIL ANALYSIS REPORT**

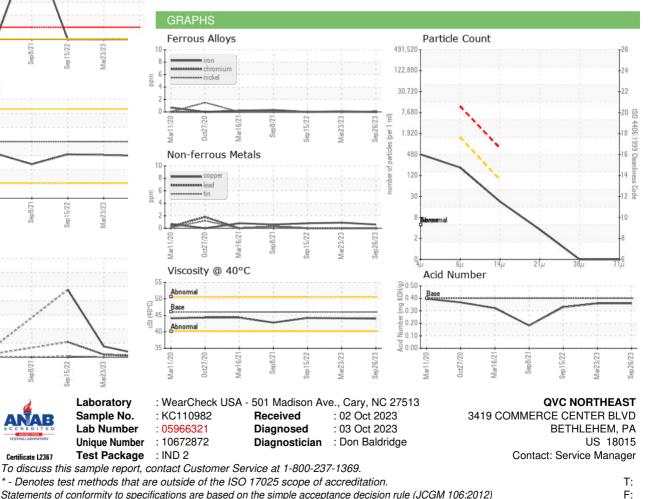






| VISUAL           |        | method    | limit/base | current | history1 | history2 |
|------------------|--------|-----------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual   | NONE       | NONE    | NONE     | VLITE    |
| Yellow Metal     | scalar | *Visual   | 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 PROPERTIES |        | method    | limit/base | current | history1 | history2 |
| Visc @ 40°C      | cSt    | ASTM D445 | 46         | 44.0    | 44.1     | 44.2     |
| SAMPLE IMAGES    | 3      | method    | limit/base | current | history1 | history2 |
| Color            |        |           |            |         |          |          |
|                  |        |           |            | 1 and   |          |          |

Bottom



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: Service Manager - QVCBET