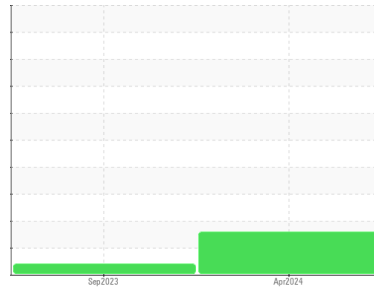




# OIL ANALYSIS REPORT

## Sample Rating Trend



ISO



Machine Id  
**KAESER 8700643 (S/N 1300)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

### DIAGNOSIS

#### ▲ Recommendation

The filter change at the time of sampling has been noted. 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 acceptable for the time in service.

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1    | history2 |
|--------------------|-------------|-------------|------------|--------------------|-------------|----------|
| Sample Number      | Client Info |             |            | <b>KC124639</b>    | KC105980    | ---      |
| Sample Date        | Client Info |             |            | <b>24 Apr 2024</b> | 29 Sep 2023 | ---      |
| Machine Age        | hrs         | Client Info |            | <b>8138</b>        | 5644        | ---      |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | 3073        | ---      |
| Oil Changed        | Client Info |             |            | <b>N/A</b>         | Not Changd  | ---      |
| Sample Status      |             |             |            | <b>ABNORMAL</b>    | ABNORMAL    | ---      |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >50        | <b>0</b>     | 0        | ---      |
| Chromium    | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 0        | ---      |
| Nickel      | ppm | ASTM D5185m | >3         | <b>0</b>     | 0        | ---      |
| Titanium    | ppm | ASTM D5185m | >3         | <b>&lt;1</b> | 0        | ---      |
| Silver      | ppm | ASTM D5185m | >2         | <b>0</b>     | 0        | ---      |
| Aluminum    | ppm | ASTM D5185m | >10        | <b>2</b>     | 0        | ---      |
| Lead        | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | <1       | ---      |
| Copper      | ppm | ASTM D5185m | >50        | <b>21</b>    | 9        | ---      |
| Tin         | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 0        | ---      |
| Vanadium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | ---      |
| Cadmium     | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | ---      |

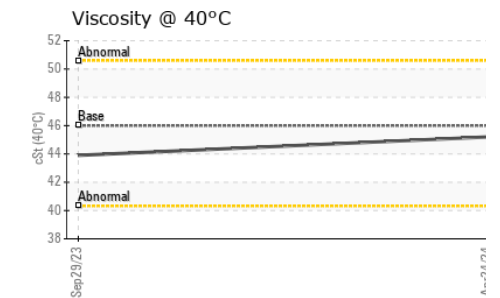
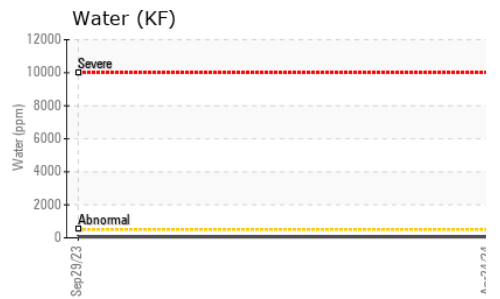
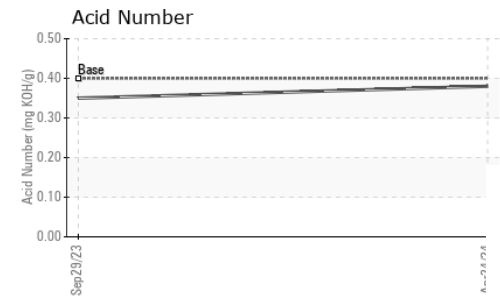
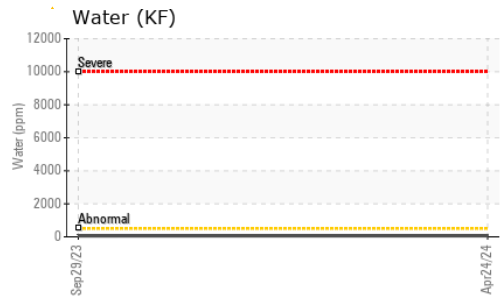
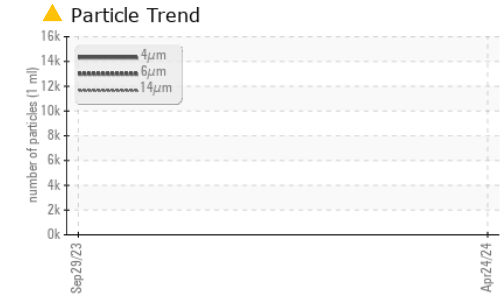
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | ---      |
| Barium     | ppm | ASTM D5185m | 90         | <b>1</b>     | 2        | ---      |
| Molybdenum | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0        | ---      |
| Manganese  | ppm | ASTM D5185m |            | <b>0</b>     | 0        | ---      |
| Magnesium  | ppm | ASTM D5185m | 90         | <b>0</b>     | 12       | ---      |
| Calcium    | ppm | ASTM D5185m | 2          | <b>3</b>     | 0        | ---      |
| Phosphorus | ppm | ASTM D5185m |            | <b>7</b>     | 2        | ---      |
| Zinc       | ppm | ASTM D5185m |            | <b>3</b>     | <1       | ---      |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>1</b>     | 2        | ---      |
| Sodium       | ppm | ASTM D5185m |            | <b>0</b>     | 3        | ---      |
| Potassium    | ppm | ASTM D5185m | >20        | <b>2</b>     | 2        | ---      |
| Water        | %   | ASTM D6304  | >0.05      | <b>0.006</b> | 0.005    | ---      |
| ppm Water    | ppm | ASTM D6304  | >500       | <b>65</b>    | 59.5     | ---      |

| FLUID CLEANLINESS |  | method       | limit/base | current           | history1 | history2 |
|-------------------|--|--------------|------------|-------------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   |            | <b>14818</b>      | ---      | ---      |
| Particles >6µm    |  | ASTM D7647   | >1300      | ▲ <b>5356</b>     | ---      | ---      |
| Particles >14µm   |  | ASTM D7647   | >80        | ▲ <b>301</b>      | ---      | ---      |
| Particles >21µm   |  | ASTM D7647   | >20        | ▲ <b>60</b>       | ---      | ---      |
| Particles >38µm   |  | ASTM D7647   | >4         | <b>1</b>          | ---      | ---      |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>0</b>          | ---      | ---      |
| Oil Cleanliness   |  | ISO 4406 (c) | >--/17/13  | ▲ <b>21/20/15</b> | ---      | ---      |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 0.4        | <b>0.38</b> | 0.35     | ---      |

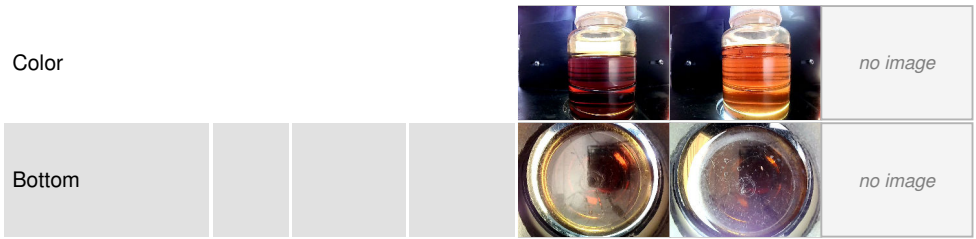
# OIL ANALYSIS REPORT



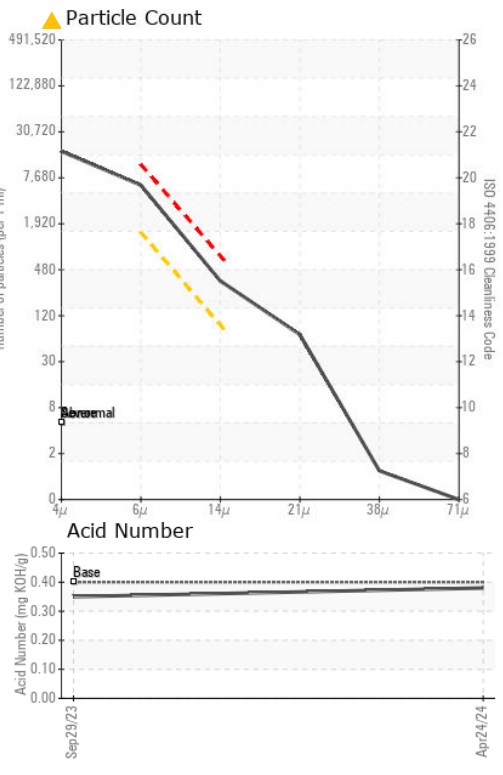
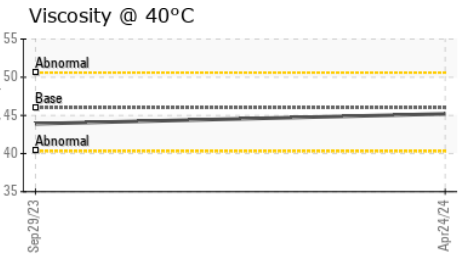
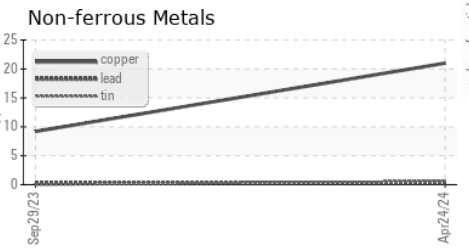
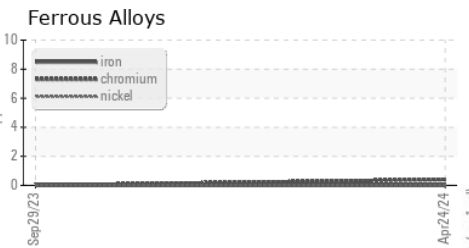
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | ---      |
| Silt             | scalar | *Visual    | NONE    | NONE     | ---      |
| Debris           | scalar | *Visual    | NONE    | NONE     | ▲ MODER  |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | ---      |
| Appearance       | scalar | *Visual    | NORML   | NORML    | ---      |
| Odor             | scalar | *Visual    | NORML   | NORML    | ---      |
| Emulsified Water | scalar | *Visual    | >0.05   | NEG      | ---      |
| Free Water       | scalar | *Visual    |         | NEG      | ---      |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 46      | 45.2     | 43.9     |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC124639  
**Lab Number** : 06177728  
**Unique Number** : 11023781  
**Test Package** : IND 2

**Received** : 13 May 2024  
**Tested** : 14 May 2024  
**Diagnosed** : 15 May 2024 - Angela Borella

**FASTENAL**  
 3939 W 56TH ST  
 INDIANAPOLIS, IN  
 US 46254  
 Contact: Service Manager

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)