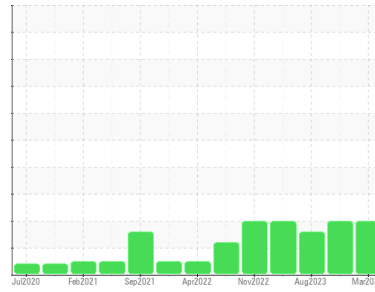




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**7147017 (S/N 1056)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. 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 suitable for further service.

| SAMPLE INFORMATION |             | method      | limit/base | current            | history1    | history2    |
|--------------------|-------------|-------------|------------|--------------------|-------------|-------------|
| Sample Number      | Client Info |             |            | <b>KC06151147</b>  | KC06062713  | KC05937247  |
| Sample Date        | Client Info |             |            | <b>20 Mar 2024</b> | 03 Jan 2024 | 22 Aug 2023 |
| Machine Age        | hrs         | Client Info |            | <b>29795</b>       | 27971       | 25587       |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | 0           | 0           |
| Oil Changed        | Client Info |             |            | <b>N/A</b>         | N/A         | N/A         |
| Sample Status      |             |             |            | <b>ABNORMAL</b>    | ABNORMAL    | ATTENTION   |

| WEAR METALS |     | method      | limit/base | current      | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron        | ppm | ASTM D5185m | >50        | <b>3</b>     | <1       | <1       |
| Chromium    | ppm | ASTM D5185m | >10        | <b>0</b>     | <1       | <1       |
| Nickel      | ppm | ASTM D5185m | >3         | <b>&lt;1</b> | 0        | 0        |
| Titanium    | ppm | ASTM D5185m | >3         | <b>0</b>     | 0        | <1       |
| Silver      | ppm | ASTM D5185m | >2         | <b>&lt;1</b> | 0        | 0        |
| Aluminum    | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 2        | <1       |
| Lead        | ppm | ASTM D5185m | >10        | <b>0</b>     | 0        | <1       |
| Copper      | ppm | ASTM D5185m | >50        | <b>20</b>    | 11       | 9        |
| Tin         | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 0        | <1       |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | <1       |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | <1       |

| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Barium     | ppm | ASTM D5185m | 90         | <b>0</b>     | 3        | 0        |
| Molybdenum | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>1</b>     | 0        | <1       |
| Magnesium  | ppm | ASTM D5185m | 90         | <b>14</b>    | 35       | 7        |
| Calcium    | ppm | ASTM D5185m | 2          | <b>&lt;1</b> | <1       | 0        |
| Phosphorus | ppm | ASTM D5185m |            | <b>4</b>     | 46       | 1        |
| Zinc       | ppm | ASTM D5185m |            | <b>42</b>    | 27       | 59       |

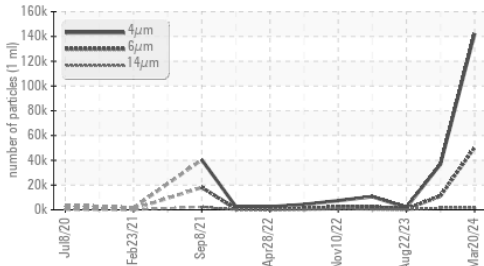
| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>&lt;1</b> | 0        | <1       |
| Sodium       | ppm | ASTM D5185m |            | <b>6</b>     | 12       | 2        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>3</b>     | 4        | 2        |
| Water        | %   | ASTM D6304  | >0.05      | <b>0.010</b> | 0.012    | 0.017    |
| ppm Water    | ppm | ASTM D6304  | >500       | <b>102</b>   | 126      | 170.9    |

| FLUID CLEANLINESS |  | method       | limit/base | current           | history1   | history2   |
|-------------------|--|--------------|------------|-------------------|------------|------------|
| Particles >4µm    |  | ASTM D7647   |            | <b>142294</b>     | 36892      | 1989       |
| Particles >6µm    |  | ASTM D7647   | >1300      | <b>▲ 50333</b>    | ▲ 11115    | 792        |
| Particles >14µm   |  | ASTM D7647   | >80        | <b>▲ 1429</b>     | ▲ 1502     | ● 100      |
| Particles >21µm   |  | ASTM D7647   | >20        | <b>▲ 169</b>      | ▲ 475      | ● 40       |
| Particles >38µm   |  | ASTM D7647   | >4         | <b>▲ 5</b>        | ▲ 25       | ● 5        |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>▲ 1</b>        | ▲ 1        | ● 0        |
| Oil Cleanliness   |  | ISO 4406 (c) | >--/17/13  | <b>▲ 24/23/18</b> | ▲ 22/21/18 | ● 18/17/14 |

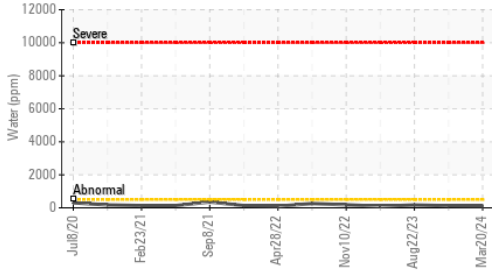
| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 0.4        | <b>0.46</b> | 0.39     | 0.43     |

# OIL ANALYSIS REPORT

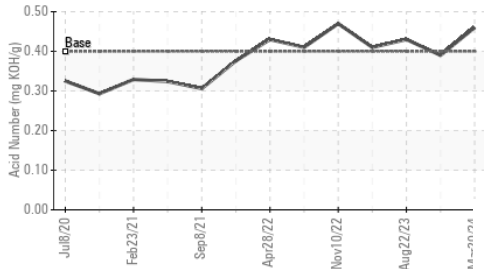
## Particle Trend



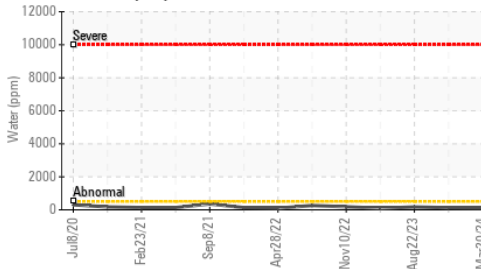
## Water (KF)



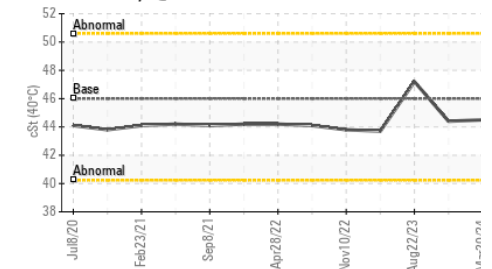
## Acid Number



## Water (KF)



## Viscosity @ 40°C



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

| FLUID PROPERTIES | method | limit/base   | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445 46 | 44.5    | 44.4     | 47.2     |

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

Color

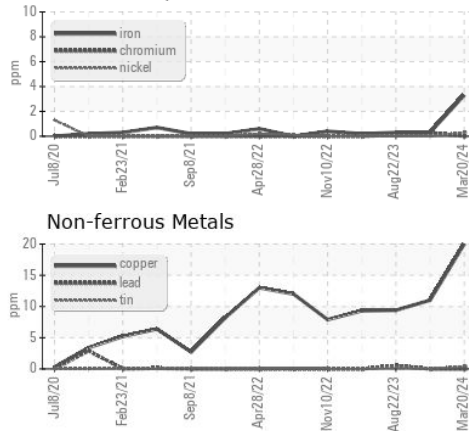


Bottom

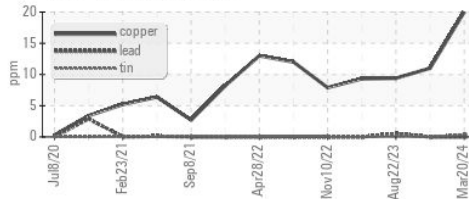


## GRAPHS

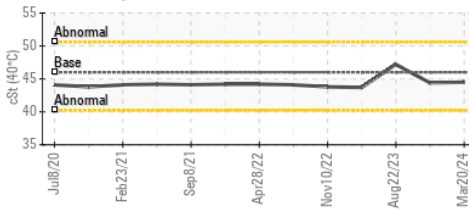
### Ferrous Alloys



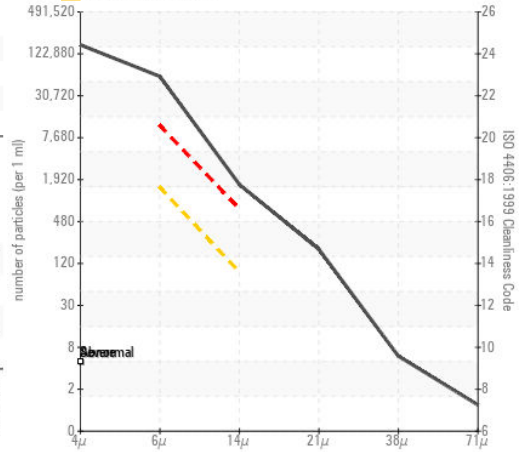
### Non-ferrous Metals



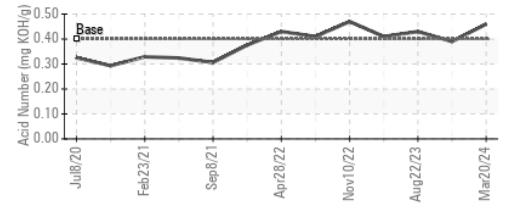
### Viscosity @ 40°C



### Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC06151147  
**Lab Number** : 06151147  
**Unique Number** : 10981225  
**Test Package** : IND 2  
**Received** : 16 Apr 2024  
**Tested** : 19 Apr 2024  
**Diagnosed** : 19 Apr 2024 - Don Baldrige

**SELIT**  
 112 SELIT DR  
 COMMERCE, GA  
 US 30309  
 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)

T:  
F: