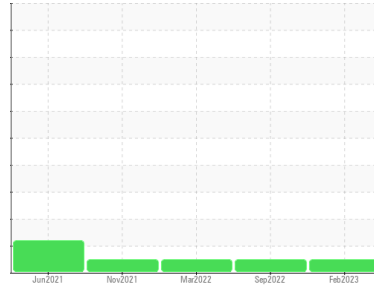




# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**



Machine Id  
**KAESER 7349808**

Component  
**Compressor**

Fluid  
**KAESER SIGMA (OEM) M-460 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

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

### 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>KCP55934</b>    | KCP46132    | KCP41057    |
| Sample Date        | Client Info |             |            | <b>23 Feb 2023</b> | 13 Sep 2022 | 15 Mar 2022 |
| Machine Age        | hrs         | Client Info |            | <b>13235</b>       | 10735       | 8394        |
| Oil Age            | hrs         | Client Info |            | <b>3000</b>        | 6377        | 3000        |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | Changed     | Changed     |
| Sample Status      |             |             |            | <b>NORMAL</b>      | NORMAL      | NORMAL      |

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

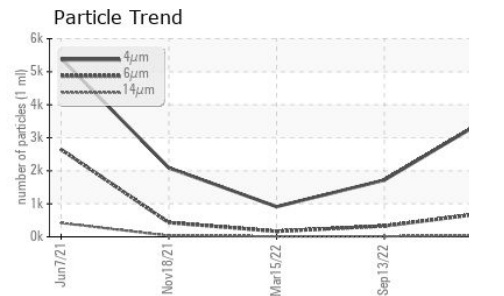
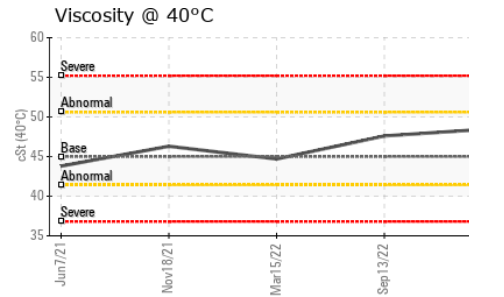
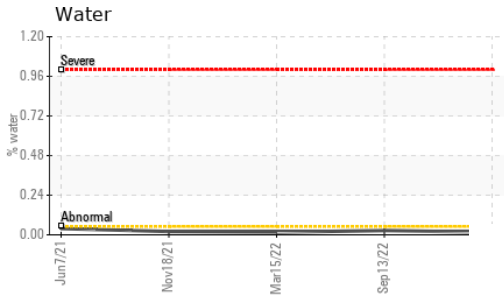
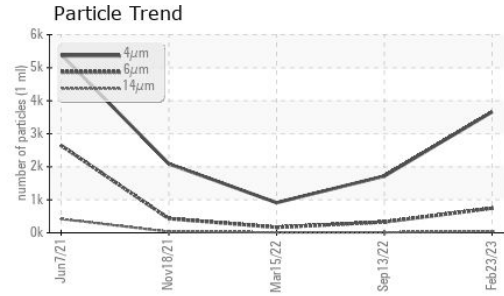
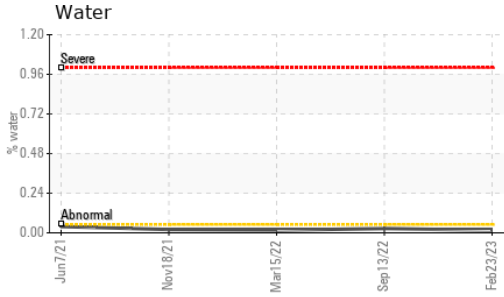
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | 1        |
| Barium     | ppm | ASTM D5185m | 90         | <b>49</b>    | 34       | 58       |
| Molybdenum | ppm | ASTM D5185m | 0          | <b>0</b>     | 0        | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>1</b>     | 0        | 0        |
| Magnesium  | ppm | ASTM D5185m | 100        | <b>96</b>    | 70       | 88       |
| Calcium    | ppm | ASTM D5185m | 0          | <b>2</b>     | 2        | 2        |
| Phosphorus | ppm | ASTM D5185m | 0          | <b>0</b>     | 5        | 2        |
| Zinc       | ppm | ASTM D5185m | 0          | <b>27</b>    | 6        | 0        |
| Sulfur     | ppm | ASTM D5185m | 23500      | <b>21870</b> | 18846    | 16026    |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>1</b>     | <1       | <1       |
| Sodium       | ppm | ASTM D5185m |            | <b>16</b>    | 13       | 10       |
| Potassium    | ppm | ASTM D5185m | >20        | <b>6</b>     | 0        | 2        |
| Water        | %   | ASTM D6304  | >0.05      | <b>0.015</b> | 0.026    | 0.016    |
| ppm Water    | ppm | ASTM D6304  | >500       | <b>156.9</b> | 263.7    | 164.2    |

| FLUID CLEANLINESS |  | method       | limit/base | current         | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   |            | <b>3662</b>     | 1718     | 912      |
| Particles >6µm    |  | ASTM D7647   | >1300      | <b>745</b>      | 328      | 167      |
| Particles >14µm   |  | ASTM D7647   | >80        | <b>40</b>       | 14       | 13       |
| Particles >21µm   |  | ASTM D7647   | >20        | <b>8</b>        | 3        | 2        |
| Particles >38µm   |  | ASTM D7647   | >4         | <b>0</b>        | 1        | 0        |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>0</b>        | 1        | 0        |
| Oil Cleanliness   |  | ISO 4406 (c) | >--/17/13  | <b>19/17/12</b> | 18/16/11 | 15/11    |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 1.0        | <b>0.43</b> | 0.37     | 0.38     |

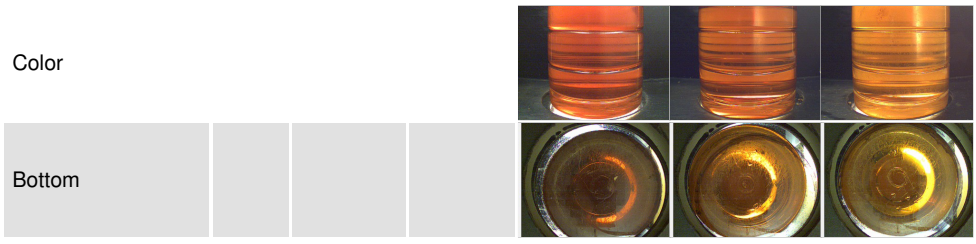
# OIL ANALYSIS REPORT



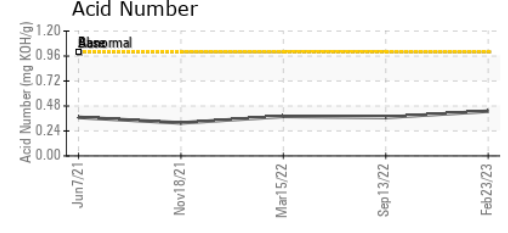
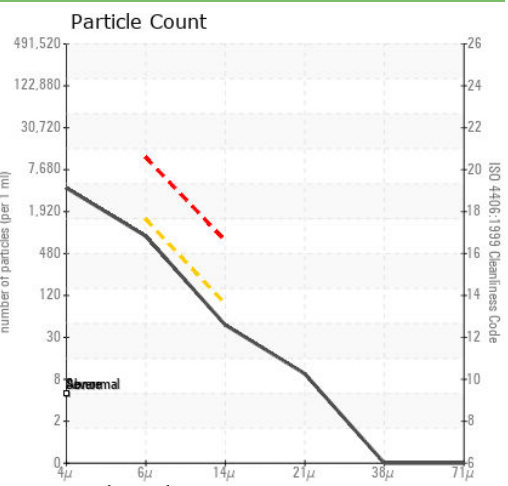
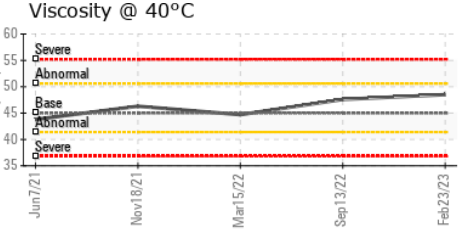
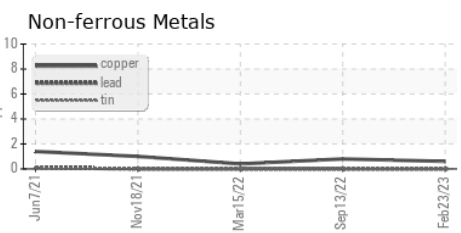
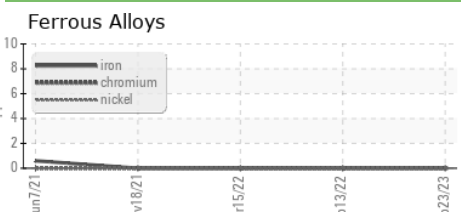
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| 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  | 45      | 48.5     | 47.6     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCP55934 **Received** : 28 Feb 2023  
**Lab Number** : 05779509 **Diagnosed** : 02 Mar 2023  
**Unique Number** : 10359179 **Diagnostician** : Angela Borella  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**AMAZON**  
 9700 S 13TH ST  
 OAK CREEK, WI  
 US 53154  
 Contact: Service Manager  
 ssswosin@amazon.com

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)