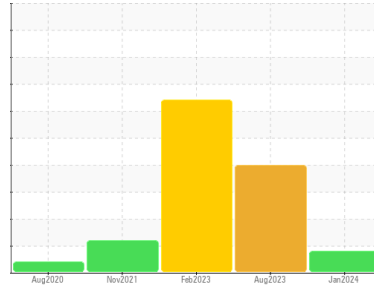




# OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id  
**KAESER 6970126 (S/N 1040)**

Component  
**Compressor**

Fluid  
**KAESER SIGMA (OEM) M-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 moderate amount of silt (particulates < 14 microns in size) 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>KC123274</b>    | KCPA003528  | KC105948    |
| Sample Date   | Client Info |             | <b>05 Jan 2024</b> | 22 Aug 2023 | 01 Feb 2023 |
| Machine Age   | hrs         | Client Info | <b>12712</b>       | 11465       | 9092        |
| Oil Age       | hrs         | Client Info | <b>0</b>           | 0           | 4395        |
| Oil Changed   | Client Info |             | <b>N/A</b>         | N/A         | Not Changd  |
| Sample Status |             |             | <b>ATTENTION</b>   | ABNORMAL    | ABNORMAL    |

## WEAR METALS

|          | method | limit/base      | current      | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >50 | <b>0</b>     | <1       | <1       |
| Chromium | ppm    | ASTM D5185m >10 | <b>&lt;1</b> | 0        | 0        |
| Nickel   | ppm    | ASTM D5185m >3  | <b>0</b>     | 0        | 0        |
| Titanium | ppm    | ASTM D5185m >3  | <b>0</b>     | <1       | 0        |
| Silver   | ppm    | ASTM D5185m >2  | <b>0</b>     | 0        | 0        |
| Aluminum | ppm    | ASTM D5185m >10 | <b>2</b>     | 0        | 1        |
| Lead     | ppm    | ASTM D5185m >10 | <b>0</b>     | 0        | 0        |
| Copper   | ppm    | ASTM D5185m >50 | <b>28</b>    | 30       | 12       |
| 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        | 0        |
| Barium     | ppm    | ASTM D5185m 90  | <b>0</b>  | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185m 0   | <b>0</b>  | 0        | 0        |
| Manganese  | ppm    | ASTM D5185m     | <b>0</b>  | 0        | <1       |
| Magnesium  | ppm    | ASTM D5185m 100 | <b>0</b>  | 0        | 13       |
| Calcium    | ppm    | ASTM D5185m 0   | <b>0</b>  | 0        | <1       |
| Phosphorus | ppm    | ASTM D5185m 0   | <b>35</b> | 2        | 8        |
| Zinc       | ppm    | ASTM D5185m 0   | <b>0</b>  | 0        | 31       |

## CONTAMINANTS

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >25  | <b>2</b>     | 2        | 2        |
| Sodium    | ppm    | ASTM D5185m      | <b>&lt;1</b> | <1       | 1        |
| Potassium | ppm    | ASTM D5185m >20  | <b>&lt;1</b> | 0        | 0        |
| Water     | %      | ASTM D6304 >0.05 | <b>0.008</b> | ▲ 0.135  | ▲ 0.365  |
| ppm Water | ppm    | ASTM D6304 >500  | <b>87</b>    | ▲ 1350   | ▲ 3650   |

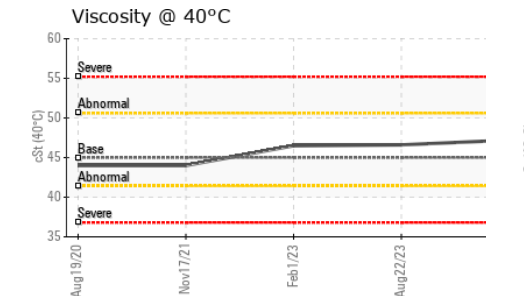
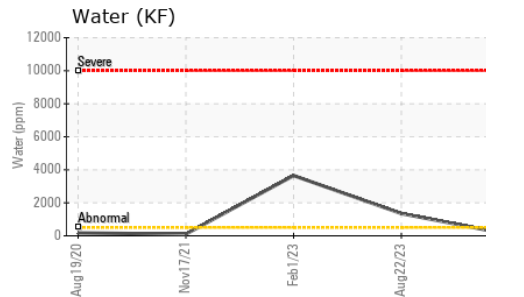
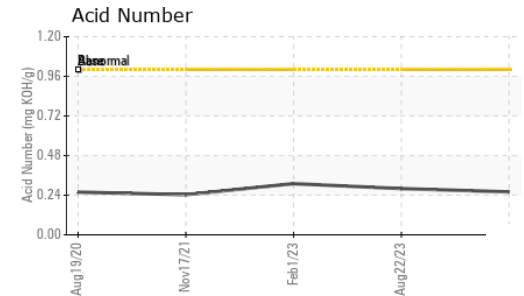
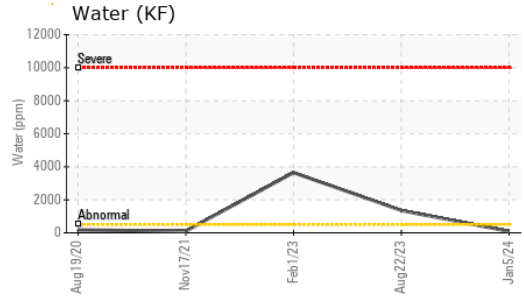
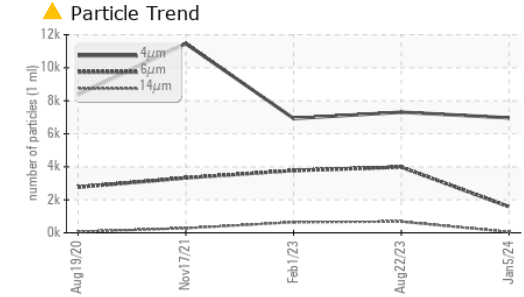
## FLUID CLEANLINESS

|                 | method       | limit/base | current           | history1   | history2   |
|-----------------|--------------|------------|-------------------|------------|------------|
| Particles >4µm  | ASTM D7647   |            | <b>6960</b>       | 7308       | 6925       |
| Particles >6µm  | ASTM D7647   | >1300      | ▲ <b>1581</b>     | ▲ 3981     | ▲ 3772     |
| Particles >14µm | ASTM D7647   | >80        | <b>54</b>         | ▲ 678      | ▲ 642      |
| Particles >21µm | ASTM D7647   | >20        | <b>16</b>         | ▲ 228      | ▲ 216      |
| Particles >38µm | ASTM D7647   | >4         | <b>0</b>          | ▲ 35       | ▲ 33       |
| Particles >71µm | ASTM D7647   | >3         | <b>0</b>          | ▲ 4        | ▲ 3        |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13  | ▲ <b>20/18/13</b> | ▲ 20/19/17 | ▲ 20/19/17 |

## FLUID DEGRADATION

|                  | method   | limit/base     | current     | history1 | history2 |
|------------------|----------|----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 1.0 | <b>0.26</b> | 0.28     | 0.31     |

# OIL ANALYSIS REPORT

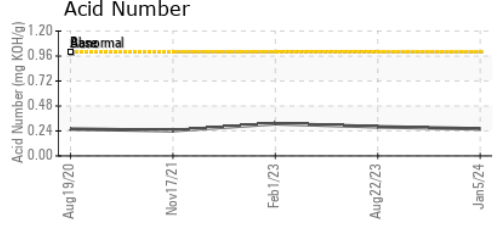
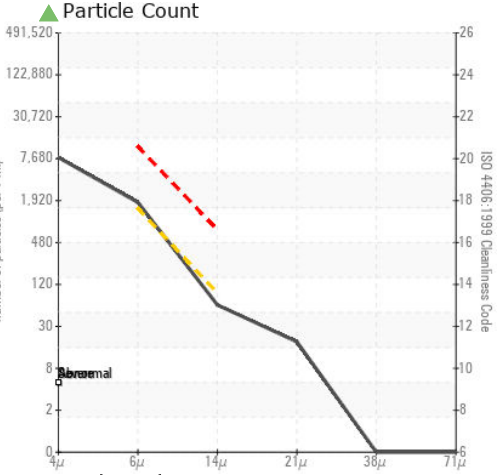
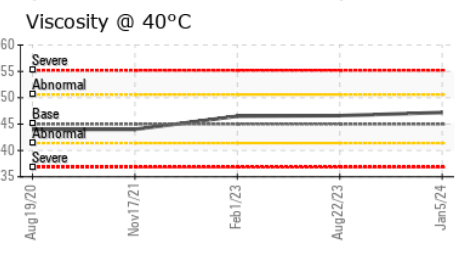
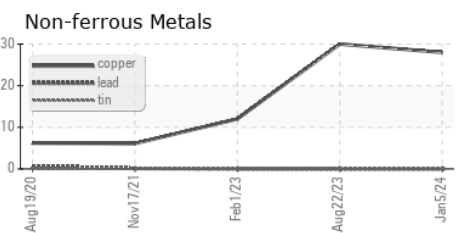
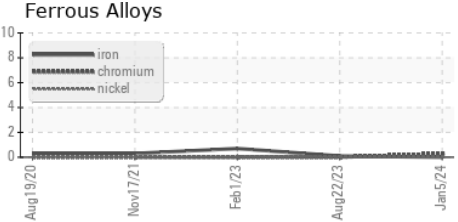


| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | LIGHT    |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| 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    | ▲ HAZY   |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.05   | NEG      | ▲ 0.2%   |
| Free Water       | scalar | *Visual    |         | NEG      | ▲ 1.0    |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 45      | 47.2     | 46.6     |

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

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC123274 **Received** : 12 Jan 2024  
**Lab Number** : 06060278 **Diagnosed** : 16 Jan 2024  
**Unique Number** : 10831660 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2

**BELLE TIRE**  
 2120 S LIBERTY DR  
 BLOOMINGTON, IN  
 US  
 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)

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