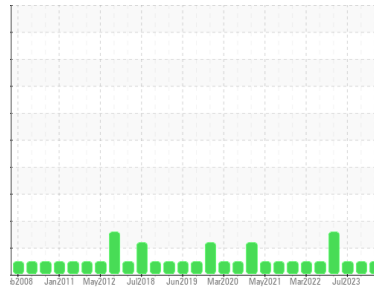




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**KAESER BSD-60T 2705561 (S/N 1019)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- QTS)**

## 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 component. The amount and size of particulates present in the system is 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>KC129339</b>    | KC122199    | KC108933    |
| Sample Date        | Client Info |             |            | <b>13 May 2024</b> | 05 Dec 2023 | 24 Jul 2023 |
| Machine Age        | hrs         | Client Info |            | <b>67098</b>       | 66048       | 65408       |
| Oil Age            | hrs         | Client Info |            | <b>3000</b>        | 0           | 3000        |
| Oil Changed        | Client Info |             |            | <b>Not Changed</b> | N/A         | Not 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>0</b>     | 0        | <1       |
| Lead        | ppm | ASTM D5185m | >10        | <b>0</b>     | 0        | 0        |
| Copper      | ppm | ASTM D5185m | >50        | <b>0</b>     | 9        | 10       |
| Tin         | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 0        | 0        |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |

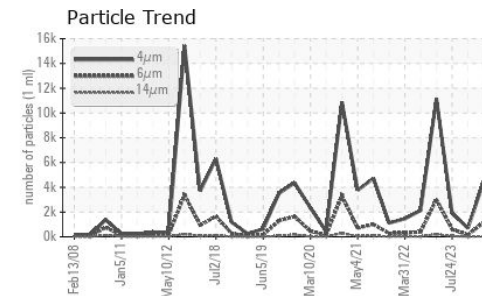
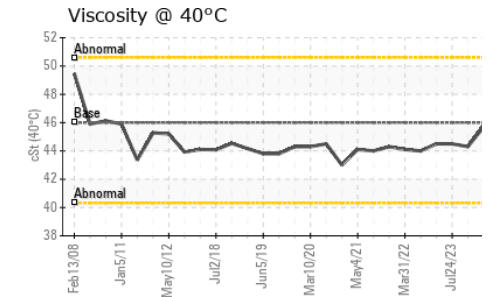
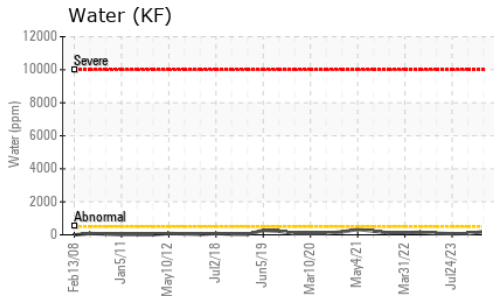
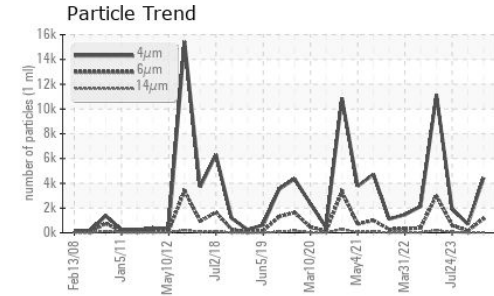
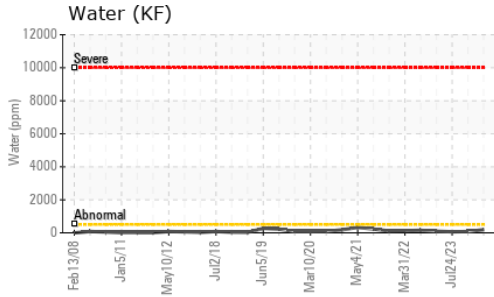
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Barium     | ppm | ASTM D5185m | 90         | <b>&lt;1</b> | 0        | 0        |
| Molybdenum | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 0        |
| Magnesium  | ppm | ASTM D5185m | 90         | <b>35</b>    | <1       | <1       |
| Calcium    | ppm | ASTM D5185m | 2          | <b>0</b>     | <1       | 0        |
| Phosphorus | ppm | ASTM D5185m |            | <b>0</b>     | <1       | 0        |
| Zinc       | ppm | ASTM D5185m |            | <b>5</b>     | 0        | 0        |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>0</b>     | <1       | 0        |
| Sodium       | ppm | ASTM D5185m |            | <b>6</b>     | 0        | 0        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>2</b>     | 0        | <1       |
| Water        | %   | ASTM D6304  | >0.05      | <b>0.019</b> | 0.007    | 0.006    |
| ppm Water    | ppm | ASTM D6304  | >500       | <b>193</b>   | 76       | 62.8     |

| FLUID CLEANLINESS |  | method       | limit/base | current         | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   |            | <b>4443</b>     | 694      | 1936     |
| Particles >6µm    |  | ASTM D7647   | >1300      | <b>1128</b>     | 163      | 598      |
| Particles >14µm   |  | ASTM D7647   | >80        | <b>44</b>       | 19       | 56       |
| Particles >21µm   |  | ASTM D7647   | >20        | <b>8</b>        | 9        | 15       |
| Particles >38µm   |  | ASTM D7647   | >4         | <b>0</b>        | 1        | 1        |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>0</b>        | 0        | 0        |
| Oil Cleanliness   |  | ISO 4406 (c) | >--/17/13  | <b>19/17/13</b> | 17/15/11 | 18/16/13 |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 0.4        | <b>0.40</b> | 0.38     | 0.40     |

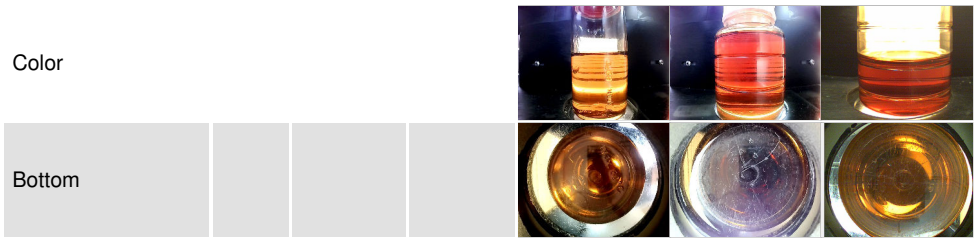
# OIL ANALYSIS REPORT



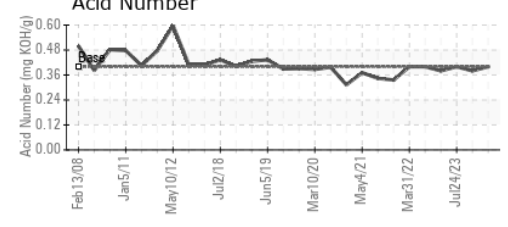
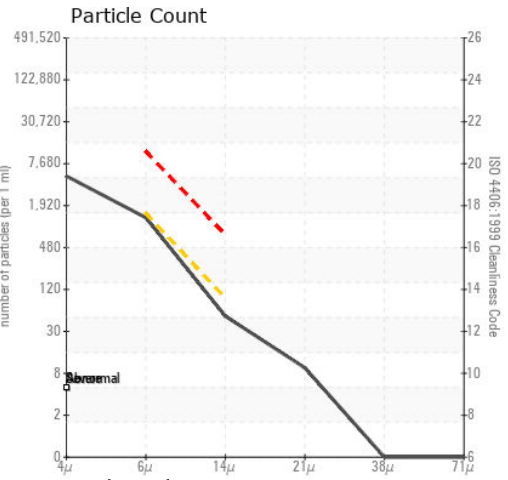
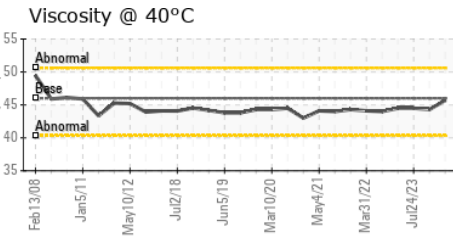
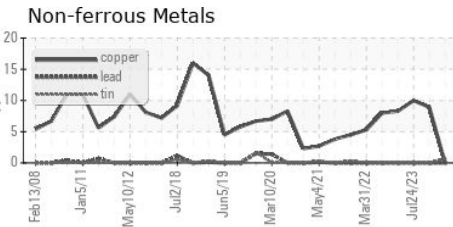
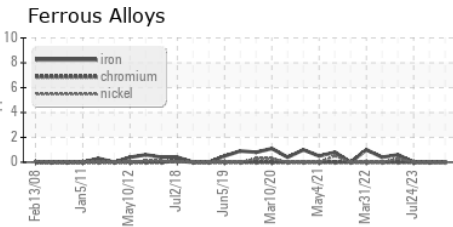
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| 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 46 | 45.7    | 44.3     | 44.5     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC129339  
**Lab Number** : 06178763  
**Unique Number** : 11030089  
**Test Package** : IND 2  
**Received** : 14 May 2024  
**Tested** : 15 May 2024  
**Diagnosed** : 16 May 2024 - Angela Borella

**FPD**  
 124 HIDDEN VALLEY RD  
 MCMURRAY, PA  
 US 15317  
 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)