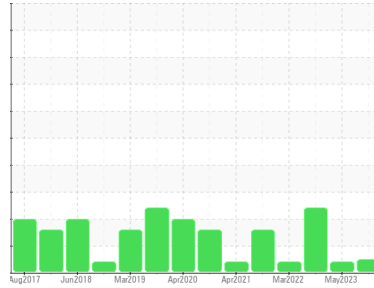




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Machine Id  
**KAESER ASD 40 5565995 (S/N 1246)**

Component  
**Compressor**  
Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

### Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination 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>KC122311</b>    | KC101533    | KC85906     |
| Sample Date        | Client Info |             |            | <b>08 Jan 2024</b> | 24 May 2023 | 13 Oct 2022 |
| Machine Age        | hrs         | Client Info |            | <b>35875</b>       | 32682       | 29978       |
| Oil Age            | hrs         | Client Info |            | <b>0</b>           | 2800        | 6000        |
| Oil Changed        | Client Info |             |            | <b>N/A</b>         | Not Changd  | Changed     |
| Sample Status      |             |             |            | <b>NORMAL</b>      | ABNORMAL    | ABNORMAL    |

| WEAR METALS |     | method      | limit/base | current  | history1 | history2 |
|-------------|-----|-------------|------------|----------|----------|----------|
| Iron        | ppm | ASTM D5185m | >50        | <b>0</b> | <1       | 0        |
| Chromium    | ppm | ASTM D5185m | >10        | <b>0</b> | <1       | 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> | <1       | <1       |
| Aluminum    | ppm | ASTM D5185m | >10        | <b>0</b> | <1       | <1       |
| Lead        | ppm | ASTM D5185m | >10        | <b>0</b> | <1       | 0        |
| Copper      | ppm | ASTM D5185m | >50        | <b>8</b> | 9        | 11       |
| Tin         | ppm | ASTM D5185m | >10        | <b>0</b> | <1       | 0        |
| Vanadium    | ppm | ASTM D5185m |            | <b>0</b> | 0        | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>0</b> | 0        | 0        |

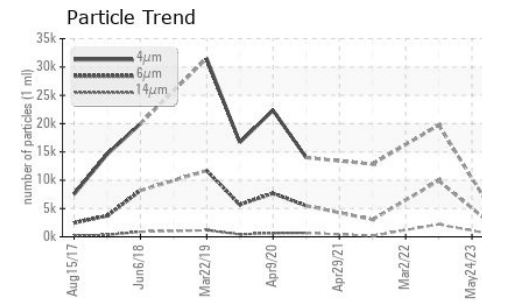
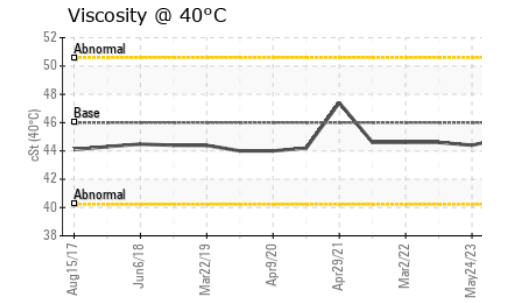
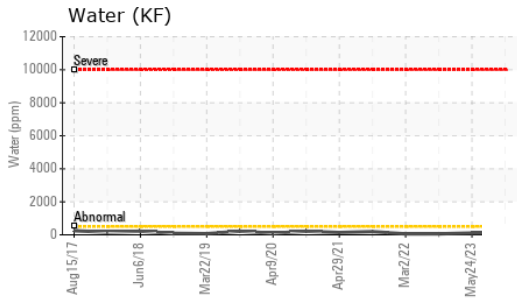
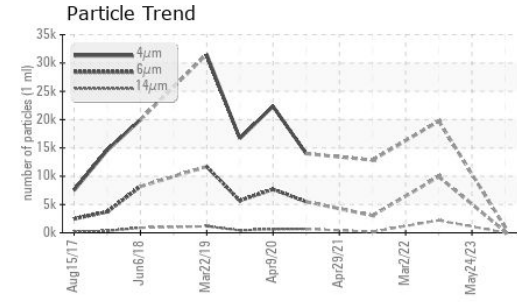
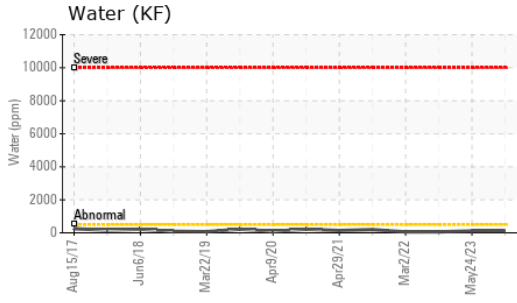
| ADDITIVES  |     | method      | limit/base | current   | history1 | history2 |
|------------|-----|-------------|------------|-----------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>  | 0        | 0        |
| Barium     | ppm | ASTM D5185m | 90         | <b>0</b>  | 0        | 0        |
| Molybdenum | ppm | ASTM D5185m |            | <b>0</b>  | <1       | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>0</b>  | <1       | 0        |
| Magnesium  | ppm | ASTM D5185m | 90         | <b>13</b> | 47       | 2        |
| Calcium    | ppm | ASTM D5185m | 2          | <b>0</b>  | 0        | 0        |
| Phosphorus | ppm | ASTM D5185m |            | <b>0</b>  | 0        | 2        |
| Zinc       | ppm | ASTM D5185m |            | <b>14</b> | 18       | 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>     | 18       | 0        |
| Potassium    | ppm | ASTM D5185m | >20        | <b>2</b>     | 4        | 1        |
| Water        | %   | ASTM D6304  | >0.05      | <b>0.011</b> | 0.011    | 0.005    |
| ppm Water    | ppm | ASTM D6304  | >500       | <b>117</b>   | 114.9    | 56.9     |

| FLUID CLEANLINESS |  | method       | limit/base | current      | history1 | history2 |
|-------------------|--|--------------|------------|--------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   |            | <b>990</b>   | ---      | 19735    |
| Particles >6µm    |  | ASTM D7647   | >1300      | <b>212</b>   | ---      | ▲ 9923   |
| Particles >14µm   |  | ASTM D7647   | >80        | <b>13</b>    | ---      | ▲ 2191   |
| Particles >21µm   |  | ASTM D7647   | >20        | <b>3</b>     | ---      | ▲ 713    |
| Particles >38µm   |  | ASTM D7647   | >4         | <b>0</b>     | ---      | ▲ 72     |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>0</b>     | ---      | ▲ 4      |
| Oil Cleanliness   |  | ISO 4406 (c) | >17/13     | <b>15/11</b> | ---      | ▲ 20/18  |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 0.4        | <b>0.36</b> | 0.32     | 0.40     |

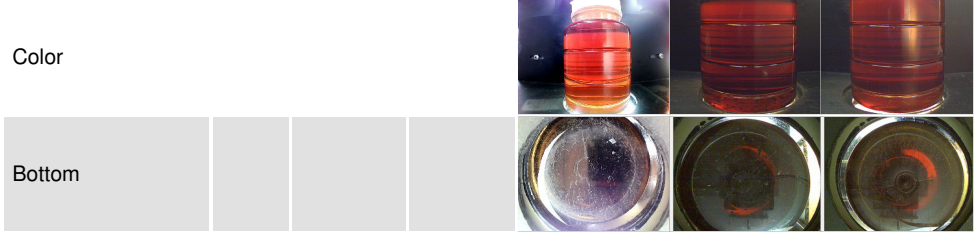
# OIL ANALYSIS REPORT



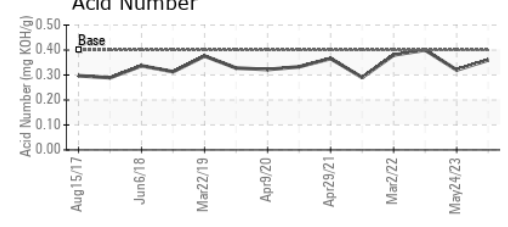
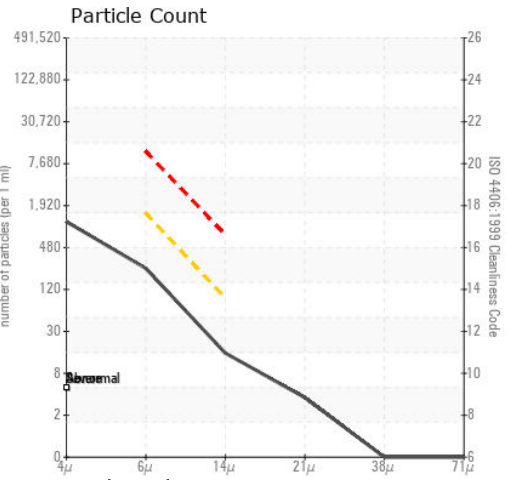
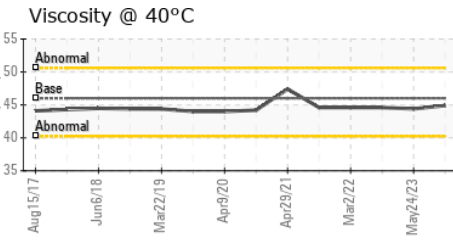
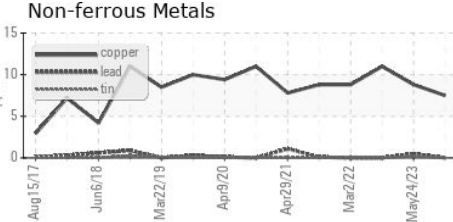
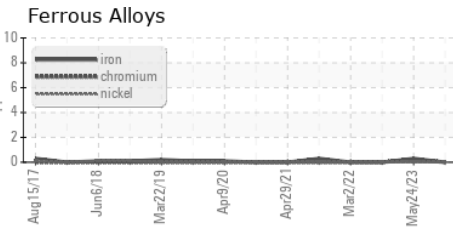
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | ▲ MODER  |
| 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 | 44.9    | 44.4     | 44.6     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC122311 **Received** : 30 Jan 2024  
**Lab Number** : 06073890 **Diagnosed** : 31 Jan 2024  
**Unique Number** : 10855981 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2

**WILSON FOREST PRODUCTS**  
 1216 JEFFERSON RD  
 JEFFERSON, PA  
 US 15344  
 Contact:

Certificate L2367  
 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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F: