



# OIL ANALYSIS REPORT

## Sample Rating Trend



Machine Id  
**8793580 (S/N 1331)**  
 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 acceptable for the time in service.

### SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1    | history2 |
|---------------|-------------|-------------|--------------------|-------------|----------|
| Sample Number | Client Info |             | <b>KCPA016775</b>  | KCPA009445  | ---      |
| Sample Date   | Client Info |             | <b>09 May 2024</b> | 27 Oct 2023 | ---      |
| Machine Age   | hrs         | Client Info | <b>7751</b>        | 6680        | ---      |
| Oil Age       | hrs         | Client Info | <b>0</b>           | 0           | ---      |
| Oil Changed   | Client Info |             | <b>Not Chngd</b>   | N/A         | ---      |
| Sample Status |             |             | <b>ABNORMAL</b>    | ABNORMAL    | ---      |

### WEAR METALS

|          | method | limit/base      | current   | history1 | history2 |
|----------|--------|-----------------|-----------|----------|----------|
| Iron     | ppm    | ASTM D5185m >50 | <b>0</b>  | 0        | ---      |
| Chromium | ppm    | ASTM D5185m >10 | <b>0</b>  | 0        | ---      |
| Nickel   | ppm    | ASTM D5185m >3  | <b>0</b>  | 0        | ---      |
| Titanium | ppm    | ASTM D5185m >3  | <b>0</b>  | 0        | ---      |
| Silver   | ppm    | ASTM D5185m >2  | <b>0</b>  | 0        | ---      |
| Aluminum | ppm    | ASTM D5185m >10 | <b>0</b>  | 0        | ---      |
| Lead     | ppm    | ASTM D5185m >10 | <b>0</b>  | 0        | ---      |
| Copper   | ppm    | ASTM D5185m >50 | <b>13</b> | 19       | ---      |
| Tin      | ppm    | ASTM D5185m >10 | <b>0</b>  | 0        | ---      |
| Vanadium | ppm    | ASTM D5185m     | <b>0</b>  | 0        | ---      |
| Cadmium  | ppm    | ASTM D5185m     | <b>0</b>  | 0        | ---      |

### ADDITIVES

|            | method | limit/base     | current      | history1 | history2 |
|------------|--------|----------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m    | <b>0</b>     | 0        | ---      |
| Barium     | ppm    | ASTM D5185m 90 | <b>1</b>     | 0        | ---      |
| Molybdenum | ppm    | ASTM D5185m    | <b>0</b>     | 0        | ---      |
| Manganese  | ppm    | ASTM D5185m    | <b>0</b>     | 0        | ---      |
| Magnesium  | ppm    | ASTM D5185m 90 | <b>19</b>    | 0        | ---      |
| Calcium    | ppm    | ASTM D5185m 2  | <b>0</b>     | 0        | ---      |
| Phosphorus | ppm    | ASTM D5185m    | <b>&lt;1</b> | 0        | ---      |
| Zinc       | ppm    | ASTM D5185m    | <b>6</b>     | 0        | ---      |
| Sulfur     | ppm    | ASTM D5185m    | <b>20082</b> | 14286    | ---      |

### CONTAMINANTS

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >25  | <b>&lt;1</b> | <1       | ---      |
| Sodium    | ppm    | ASTM D5185m      | <b>7</b>     | 0        | ---      |
| Potassium | ppm    | ASTM D5185m >20  | <b>0</b>     | 0        | ---      |
| Water     | %      | ASTM D6304 >0.05 | <b>0.013</b> | 0.010    | ---      |
| ppm Water | ppm    | ASTM D6304 >500  | <b>132</b>   | 106.8    | ---      |

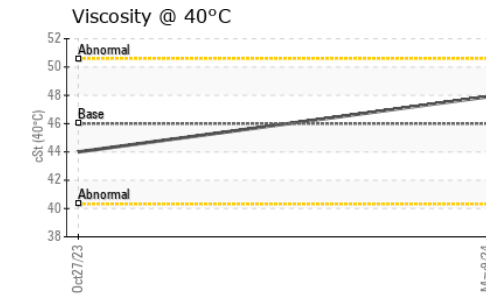
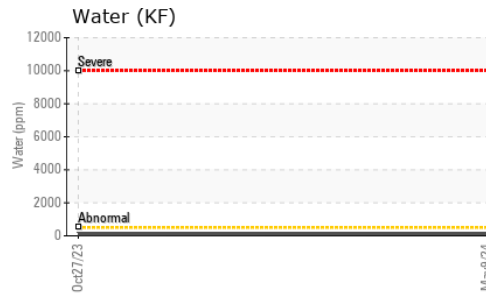
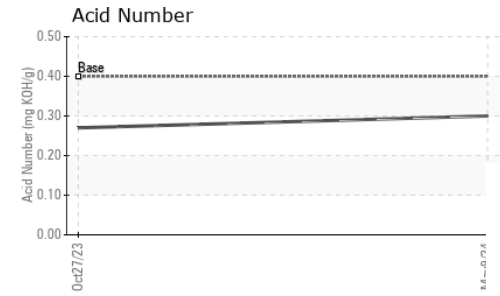
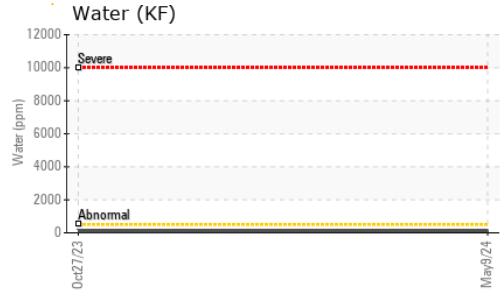
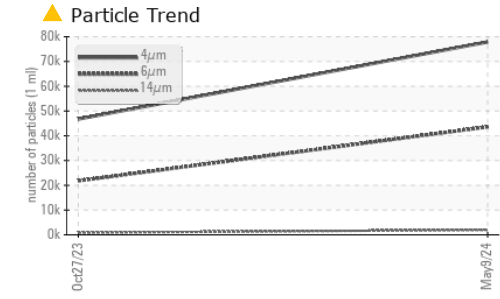
### FLUID CLEANLINESS

|                 | method                 | limit/base | current           | history1   | history2 |
|-----------------|------------------------|------------|-------------------|------------|----------|
| Particles >4µm  | ASTM D7647             |            | <b>77888</b>      | 46749      | ---      |
| Particles >6µm  | ASTM D7647 >1300       |            | <b>▲ 43565</b>    | ▲ 21778    | ---      |
| Particles >14µm | ASTM D7647 >80         |            | <b>▲ 1979</b>     | ▲ 833      | ---      |
| Particles >21µm | ASTM D7647 >20         |            | <b>▲ 199</b>      | ▲ 124      | ---      |
| Particles >38µm | ASTM D7647 >4          |            | <b>▲ 6</b>        | ▲ 7        | ---      |
| Particles >71µm | ASTM D7647 >3          |            | <b>0</b>          | 0          | ---      |
| Oil Cleanliness | ISO 4406 (c) >--/17/13 |            | <b>▲ 23/23/18</b> | ▲ 23/22/17 | ---      |

### FLUID DEGRADATION

|                  | method   | limit/base     | current     | history1 | history2 |
|------------------|----------|----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.4 | <b>0.30</b> | 0.27     | ---      |

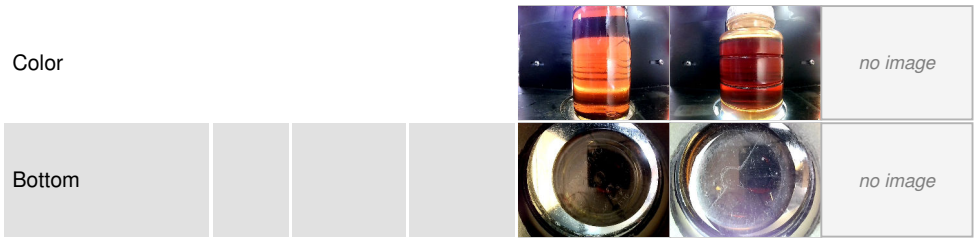
# OIL ANALYSIS REPORT



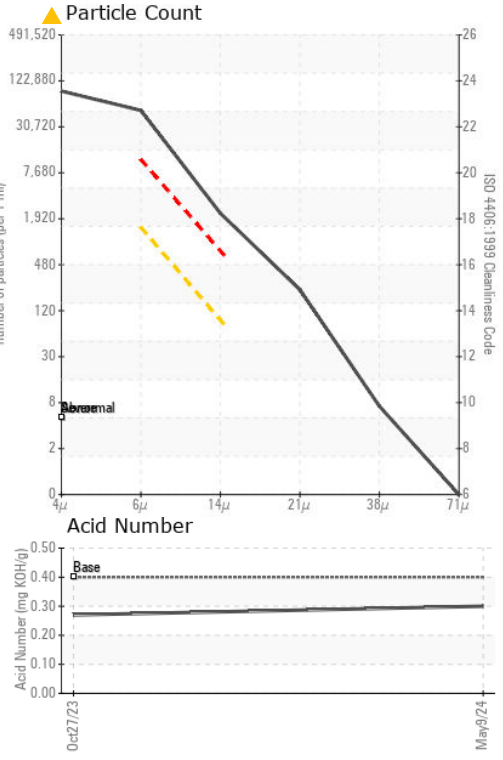
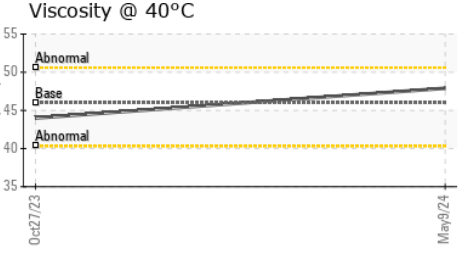
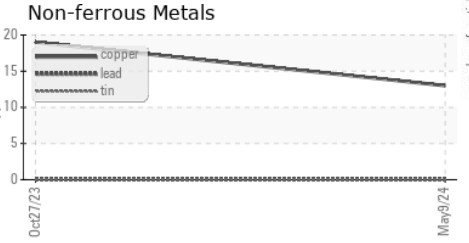
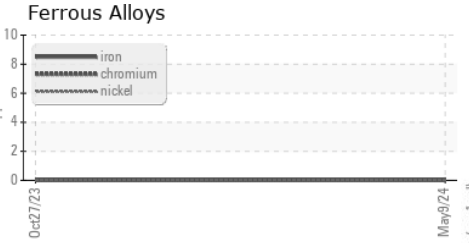
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | ---      |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | ---      |
|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

| FLUID PROPERTIES | method | limit/base   | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445 46 | 47.9    | 44.0     | ---      |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA016775 **Received** : 11 Jun 2024  
**Lab Number** : 06206537 **Tested** : 13 Jun 2024  
**Unique Number** : 11073998 **Diagnosed** : 13 Jun 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**JIT STEEL LLC - UPG ENTERPRISES LLC**  
 530 MANUFACTURERS RD  
 CHATTANOOGA, TN  
 R. 27405  
 Contact: R. ROGERS  
 rrogers@maksteel.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)