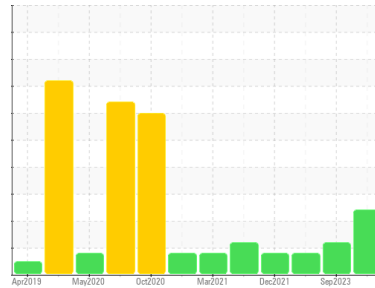


# OIL ANALYSIS REPORT

Sample Rating Trend



**WEAR**



Machine Id  
**KAESER BSD 60 6244559 (S/N 1397)**

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**

The tin level is abnormal. All other 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 suitable for further service.

**SAMPLE INFORMATION**

|               | method      | limit/base  | current            | history1    | history2    |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info |             | <b>KCPA016306</b>  | KCPA005216  | KCP50779    |
| Sample Date   | Client Info |             | <b>25 Mar 2024</b> | 12 Sep 2023 | 11 Jul 2022 |
| Machine Age   | hrs         | Client Info | <b>36111</b>       | 32287       | 24009       |
| Oil Age       | hrs         | Client Info | <b>3829</b>        | 0           | 4620        |
| Oil Changed   | Client Info |             | <b>Not Chngd</b>   | N/A         | Changed     |
| Sample Status |             |             | <b>ABNORMAL</b>    | ABNORMAL    | ABNORMAL    |

**WEAR METALS**

|          | method | limit/base      | current      | history1    | history2    |
|----------|--------|-----------------|--------------|-------------|-------------|
| Iron     | ppm    | ASTM D5185m >50 | <b>0</b>     | 0           | 0           |
| 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>&lt;1</b> | 0           | 0           |
| Silver   | ppm    | ASTM D5185m >2  | <b>0</b>     | 0           | 0           |
| Aluminum | ppm    | ASTM D5185m >10 | <b>3</b>     | <1          | <1          |
| Lead     | ppm    | ASTM D5185m >10 | <b>0</b>     | 0           | 0           |
| Copper   | ppm    | ASTM D5185m >50 | <b>13</b>    | 6           | 21          |
| Tin      | ppm    | ASTM D5185m >10 | <b>▲ 17</b>  | <b>▲ 52</b> | <b>▲ 28</b> |
| 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    | <b>0</b>     | 0        | 0        |
| Barium     | ppm    | ASTM D5185m 90 | <b>0</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>&lt;1</b> | 2        | 0        |
| Calcium    | ppm    | ASTM D5185m 2  | <b>3</b>     | 0        | 0        |
| Phosphorus | ppm    | ASTM D5185m    | <b>2</b>     | 0        | 0        |
| Zinc       | ppm    | ASTM D5185m    | <b>0</b>     | 0        | 0        |
| Sulfur     | ppm    | ASTM D5185m    | <b>15303</b> | 7708     | 13486    |

**CONTAMINANTS**

|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >25  | <b>&lt;1</b> | <1       | 0        |
| Sodium    | ppm    | ASTM D5185m      | <b>0</b>     | 0        | <1       |
| Potassium | ppm    | ASTM D5185m >20  | <b>2</b>     | <1       | 0        |
| Water     | %      | ASTM D6304 >0.05 | <b>0.008</b> | 0.004    | 0.007    |
| ppm Water | ppm    | ASTM D6304 >500  | <b>89</b>    | 43.6     | 73.7     |

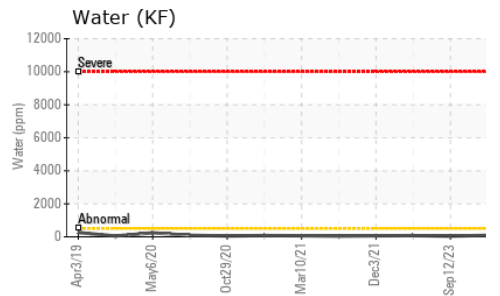
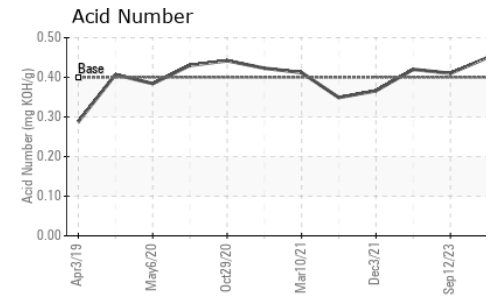
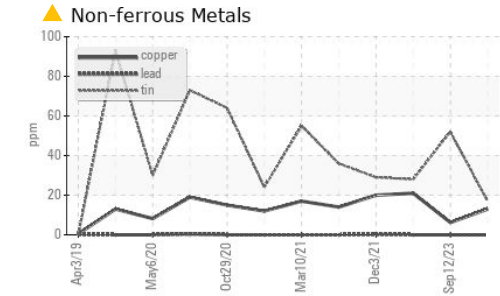
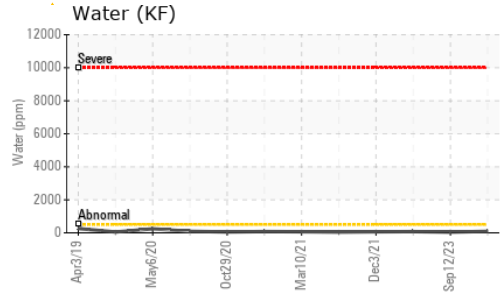
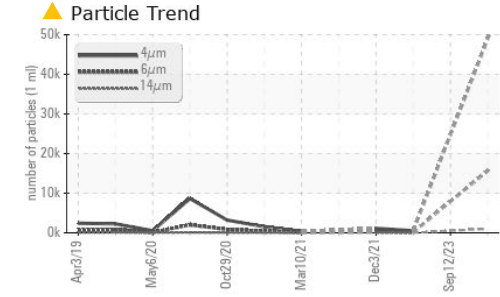
**FLUID CLEANLINESS**

|                 | method                 | limit/base | current           | history1 | history2 |
|-----------------|------------------------|------------|-------------------|----------|----------|
| Particles >4µm  | ASTM D7647             |            | <b>48901</b>      | ---      | 526      |
| Particles >6µm  | ASTM D7647 >1300       |            | <b>▲ 15613</b>    | ---      | 152      |
| Particles >14µm | ASTM D7647 >80         |            | <b>▲ 1001</b>     | ---      | 18       |
| Particles >21µm | ASTM D7647 >20         |            | <b>▲ 209</b>      | ---      | 3        |
| Particles >38µm | ASTM D7647 >4          |            | <b>3</b>          | ---      | 0        |
| Particles >71µm | ASTM D7647 >3          |            | <b>0</b>          | ---      | 0        |
| Oil Cleanliness | ISO 4406 (c) >--/17/13 |            | <b>▲ 23/21/17</b> | ---      | 16/14/11 |

**FLUID DEGRADATION**

|                  | method   | limit/base     | current     | history1 | history2 |
|------------------|----------|----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.4 | <b>0.45</b> | 0.41     | 0.42     |

# OIL ANALYSIS REPORT



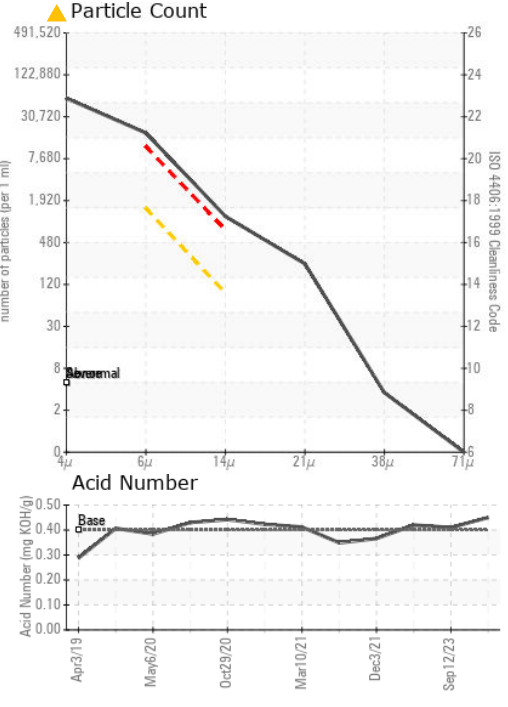
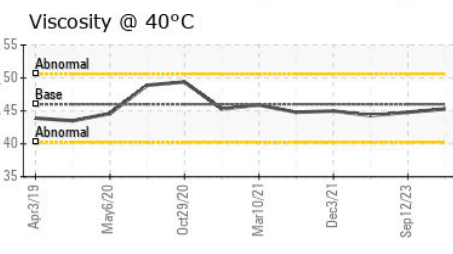
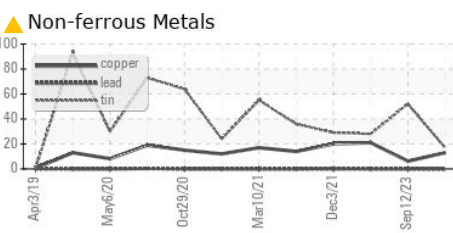
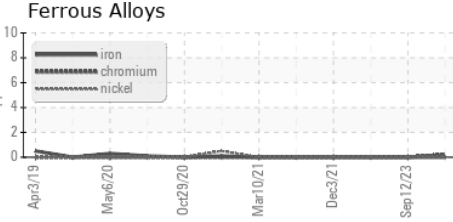
| PARAMETER        | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| 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 | 45.3    | 44.8     | 44.3     |

**SAMPLE IMAGES**

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

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA016306 **Received** : 02 Apr 2024  
**Lab Number** : 06136405 **Tested** : 03 Apr 2024  
**Unique Number** : 10955870 **Diagnosed** : 04 Apr 2024 - Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**CRESLINE PLASTIC PIPE**  
 3801 E HWY 31  
 CORSICANA, TX  
 US 75109  
 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)