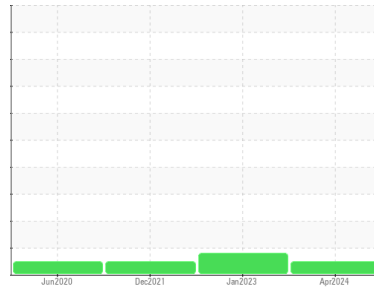




# OIL ANALYSIS REPORT

## Sample Rating Trend



**NORMAL**



Machine Id  
**KAESER DSD 125 6972030 (S/N 1034)**  
 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>KCPA017050</b>  | KCP52684    | KCP35291    |
| Sample Date        | Client Info |             |            | <b>03 Apr 2024</b> | 09 Jan 2023 | 29 Dec 2021 |
| Machine Age        | hrs         | Client Info |            | <b>9791</b>        | 5962        | 5803        |
| Oil Age            | hrs         | Client Info |            | <b>3829</b>        | 2147        | 1466        |
| Oil Changed        | Client Info |             |            | <b>Changed</b>     | Not Changd  | Changed     |
| Sample Status      |             |             |            | <b>NORMAL</b>      | ABNORMAL    | NORMAL      |

| WEAR METALS |     | method      | limit/base | current      | history1    | history2 |
|-------------|-----|-------------|------------|--------------|-------------|----------|
| Iron        | ppm | ASTM D5185m | >50        | <b>6</b>     | 2           | 1        |
| Chromium    | ppm | ASTM D5185m | >10        | <b>&lt;1</b> | 0           | 0        |
| Nickel      | ppm | ASTM D5185m | >3         | <b>&lt;1</b> | 0           | 0        |
| Titanium    | ppm | ASTM D5185m | >3         | <b>&lt;1</b> | 0           | 0        |
| Silver      | ppm | ASTM D5185m | >2         | <b>0</b>     | 0           | <1       |
| Aluminum    | ppm | ASTM D5185m | >10        | <b>2</b>     | <b>▲ 13</b> | 10       |
| Lead        | ppm | ASTM D5185m | >10        | <b>1</b>     | 0           | 0        |
| Copper      | ppm | ASTM D5185m | >50        | <b>12</b>    | 7           | 5        |
| Tin         | ppm | ASTM D5185m | >10        | <b>1</b>     | 0           | 0        |
| Antimony    | ppm | ASTM D5185m |            | <b>---</b>   | ---         | 0        |
| Vanadium    | ppm | ASTM D5185m |            | <b>&lt;1</b> | 0           | 0        |
| Cadmium     | ppm | ASTM D5185m |            | <b>1</b>     | 0           | 0        |

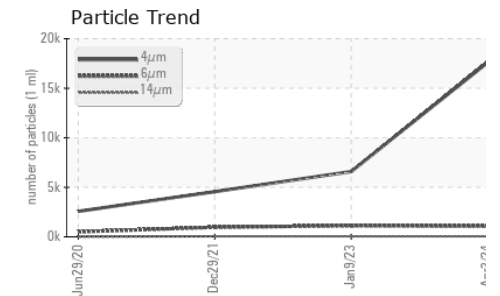
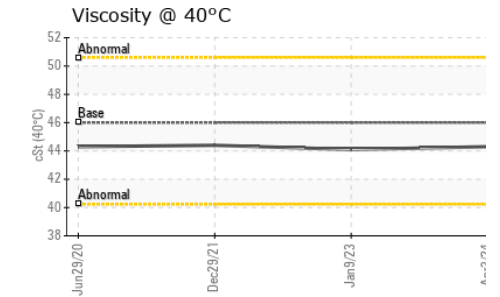
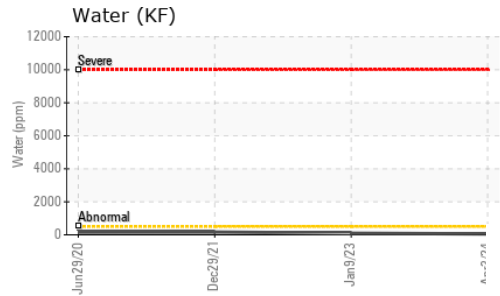
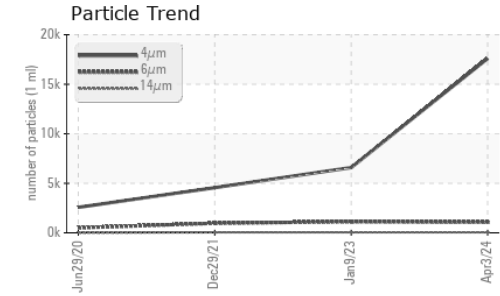
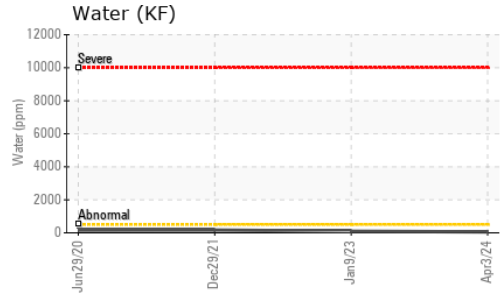
| ADDITIVES  |     | method      | limit/base | current      | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron      | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 6        |
| Barium     | ppm | ASTM D5185m | 90         | <b>0</b>     | 2        | 0        |
| Molybdenum | ppm | ASTM D5185m |            | <b>1</b>     | 0        | 0        |
| Manganese  | ppm | ASTM D5185m |            | <b>&lt;1</b> | <1       | <1       |
| Magnesium  | ppm | ASTM D5185m | 90         | <b>&lt;1</b> | 8        | 20       |
| Calcium    | ppm | ASTM D5185m | 2          | <b>5</b>     | 0        | <1       |
| Phosphorus | ppm | ASTM D5185m |            | <b>17</b>    | 4        | <1       |
| Zinc       | ppm | ASTM D5185m |            | <b>25</b>    | 65       | 43       |
| Sulfur     | ppm | ASTM D5185m |            | <b>18568</b> | 16961    | 17740    |

| CONTAMINANTS |     | method      | limit/base | current      | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon      | ppm | ASTM D5185m | >25        | <b>0</b>     | <1       | <1       |
| Sodium       | ppm | ASTM D5185m |            | <b>0</b>     | 0        | 16       |
| Potassium    | ppm | ASTM D5185m | >20        | <b>&lt;1</b> | 3        | 15       |
| Water        | %   | ASTM D6304  | >0.05      | <b>0.005</b> | 0.009    | 0.016    |
| ppm Water    | ppm | ASTM D6304  | >500       | <b>55</b>    | 96.7     | 167.3    |

| FLUID CLEANLINESS |  | method       | limit/base | current      | history1 | history2 |
|-------------------|--|--------------|------------|--------------|----------|----------|
| Particles >4µm    |  | ASTM D7647   |            | <b>17600</b> | 6588     | 4559     |
| Particles >6µm    |  | ASTM D7647   | >1300      | <b>1071</b>  | 1128     | 965      |
| Particles >14µm   |  | ASTM D7647   | >80        | <b>52</b>    | 51       | 53       |
| Particles >21µm   |  | ASTM D7647   | >20        | <b>6</b>     | 13       | 10       |
| Particles >38µm   |  | ASTM D7647   | >4         | <b>0</b>     | 0        | 0        |
| Particles >71µm   |  | ASTM D7647   | >3         | <b>0</b>     | 0        | 0        |
| Oil Cleanliness   |  | ISO 4406 (c) | >17/13     | <b>17/13</b> | 17/13    | 17/13    |

| FLUID DEGRADATION |          | method     | limit/base | current     | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN)  | mg KOH/g | ASTM D8045 | 0.4        | <b>0.42</b> | 0.36     | 0.287    |

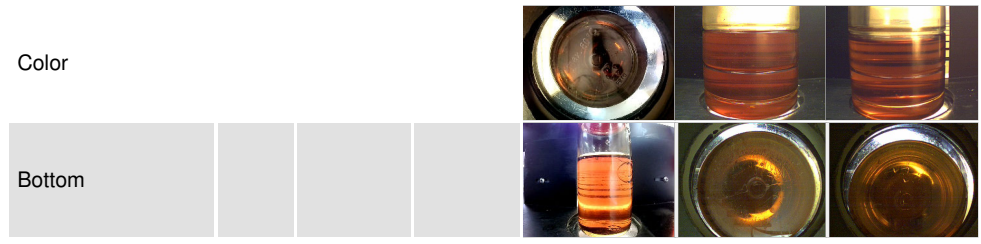
# OIL ANALYSIS REPORT



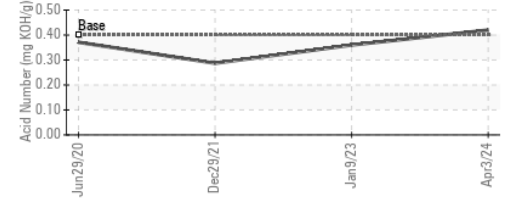
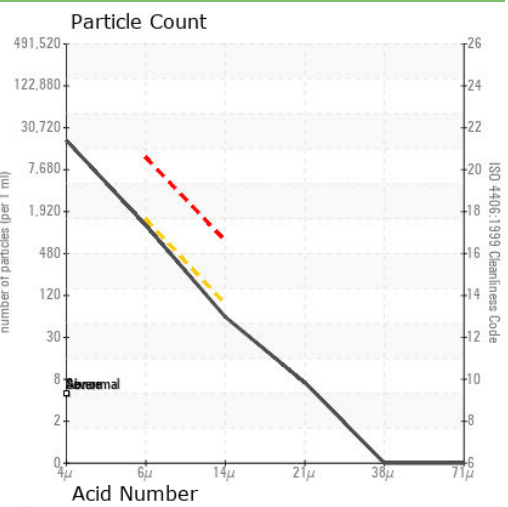
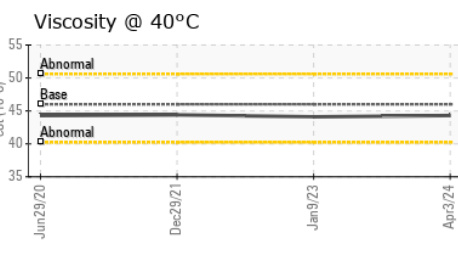
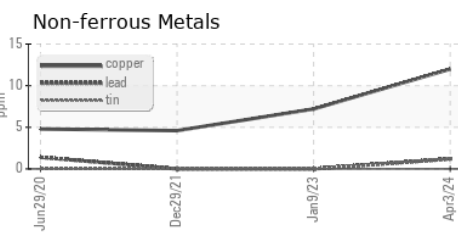
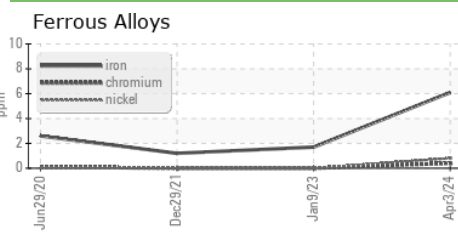
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | LIGHT    |
| 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 | 44.3    | 44.1     | 44.4     |

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



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA017050 **Received** : 11 Apr 2024  
**Lab Number** : 06146588 **Tested** : 12 Apr 2024  
**Unique Number** : 10976666 **Diagnosed** : 15 Apr 2024 - Angela Borella  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**HEIL ENVIRONMENTAL INDUSTRIES**  
 106 45TH ST NE  
 FORT PAYNE, AL  
 US 35967  
 Contact: A WILSON  
 AWILSON@DOVERESQ.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)