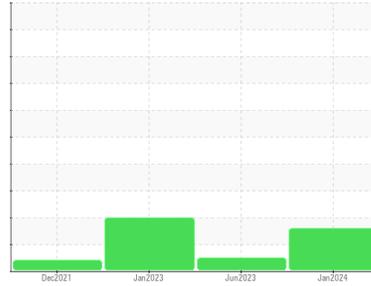




# OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id  
**KAESER AIRCENTER SK 20 7255101 (S/N 1573)**

Component  
**Compressor**

Fluid  
**KAESER SIGMA (OEM) M-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 suitable for further service.

## SAMPLE INFORMATION

| method        | limit/base  | current            | history1    | history2    |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | <b>KCPA011932</b>  | KCPA002127  | KCP54924    |
| Sample Date   | Client Info | <b>11 Jan 2024</b> | 19 Jun 2023 | 16 Jan 2023 |
| Machine Age   | hrs         | <b>6727</b>        | 6502        | 5946        |
| Oil Age       | hrs         | <b>0</b>           | 0           | 1906        |
| Oil Changed   | Client Info | <b>N/A</b>         | N/A         | Not Changd  |
| Sample Status |             | <b>ABNORMAL</b>    | NORMAL      | ABNORMAL    |

## WEAR METALS

| method   | limit/base | current         | history1     | history2 |     |
|----------|------------|-----------------|--------------|----------|-----|
| Iron     | ppm        | ASTM D5185m >50 | <b>0</b>     | 0        | <1  |
| 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> | <1       | 0   |
| Silver   | ppm        | ASTM D5185m >2  | <b>0</b>     | 0        | 0   |
| Aluminum | ppm        | ASTM D5185m >10 | <b>2</b>     | 1        | 0   |
| Lead     | ppm        | ASTM D5185m >10 | <b>&lt;1</b> | 0        | 0   |
| Copper   | ppm        | ASTM D5185m >50 | <b>4</b>     | 1        | 2   |
| Tin      | ppm        | ASTM D5185m >10 | <b>&lt;1</b> | <1       | 2   |
| Antimony | ppm        | ASTM D5185m     | <b>---</b>   | ---      | --- |
| Vanadium | ppm        | ASTM D5185m     | <b>&lt;1</b> | <1       | 0   |
| Cadmium  | ppm        | ASTM D5185m     | <b>0</b>     | 0        | 0   |

## ADDITIVES

| method     | limit/base | current           | history1     | history2 |       |
|------------|------------|-------------------|--------------|----------|-------|
| Boron      | ppm        | ASTM D5185m 0     | <b>0</b>     | 0        | 0     |
| Barium     | ppm        | ASTM D5185m 90    | <b>51</b>    | 22       | 14    |
| Molybdenum | ppm        | ASTM D5185m 0     | <b>&lt;1</b> | 0        | 0     |
| Manganese  | ppm        | ASTM D5185m       | <b>0</b>     | 0        | 0     |
| Magnesium  | ppm        | ASTM D5185m 100   | <b>87</b>    | 87       | 77    |
| Calcium    | ppm        | ASTM D5185m 0     | <b>2</b>     | 2        | 2     |
| Phosphorus | ppm        | ASTM D5185m 0     | <b>0</b>     | <1       | 4     |
| Zinc       | ppm        | ASTM D5185m 0     | <b>0</b>     | 1        | 8     |
| Sulfur     | ppm        | ASTM D5185m 23500 | <b>25076</b> | 24090    | 18099 |

## CONTAMINANTS

| method    | limit/base | current          | history1     | history2 |       |
|-----------|------------|------------------|--------------|----------|-------|
| Silicon   | ppm        | ASTM D5185m >25  | <b>0</b>     | <1       | <1    |
| Sodium    | ppm        | ASTM D5185m      | <b>6</b>     | 11       | 16    |
| Potassium | ppm        | ASTM D5185m >20  | <b>6</b>     | 7        | 10    |
| Water     | %          | ASTM D6304 >0.05 | <b>0.010</b> | 0.019    | 0.017 |
| ppm Water | ppm        | ASTM D6304 >500  | <b>107</b>   | 199.5    | 171.1 |

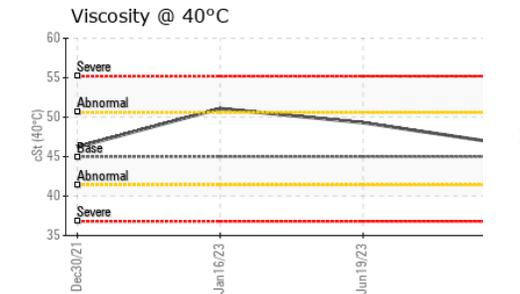
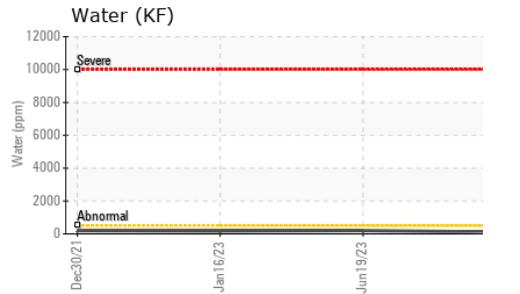
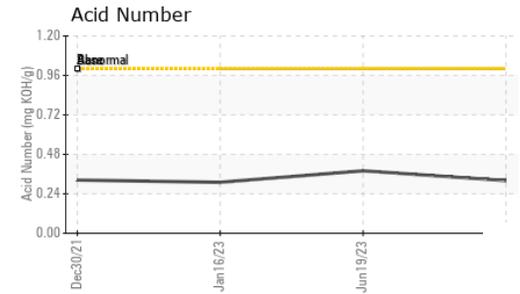
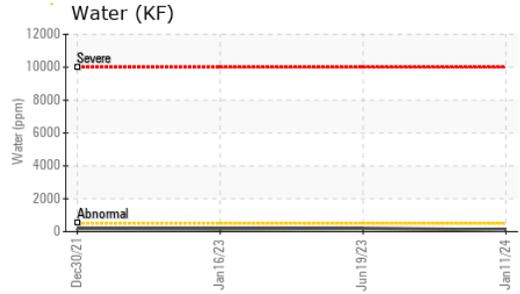
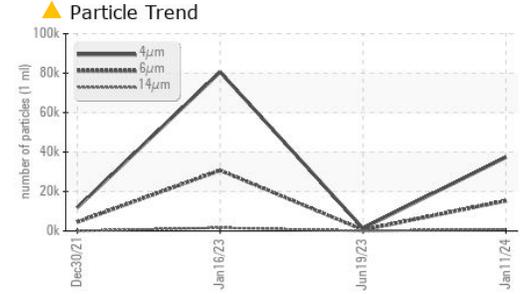
## FLUID CLEANLINESS

| method          | limit/base             | current           | history1 | history2   |
|-----------------|------------------------|-------------------|----------|------------|
| Particles >4µm  | ASTM D7647             | <b>37343</b>      | 1331     | 80541      |
| Particles >6µm  | ASTM D7647 >1300       | <b>▲ 15303</b>    | 542      | ▲ 30719    |
| Particles >14µm | ASTM D7647 >80         | <b>▲ 807</b>      | 41       | ▲ 1610     |
| Particles >21µm | ASTM D7647 >20         | <b>▲ 105</b>      | 10       | ▲ 373      |
| Particles >38µm | ASTM D7647 >4          | <b>1</b>          | 1        | ▲ 19       |
| Particles >71µm | ASTM D7647 >3          | <b>0</b>          | 1        | 1          |
| Oil Cleanliness | ISO 4406 (c) >--/17/13 | <b>▲ 22/21/17</b> | 18/16/13 | ▲ 24/22/18 |

## FLUID DEGRADATION

| method           | limit/base | current        | history1    | history2 |      |
|------------------|------------|----------------|-------------|----------|------|
| Acid Number (AN) | mg KOH/g   | ASTM D8045 1.0 | <b>0.32</b> | 0.38     | 0.31 |

# OIL ANALYSIS REPORT

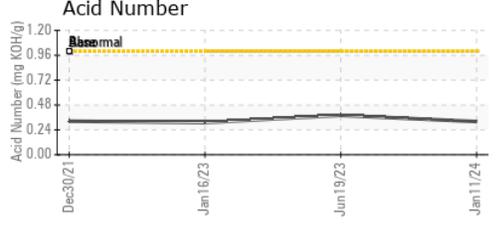
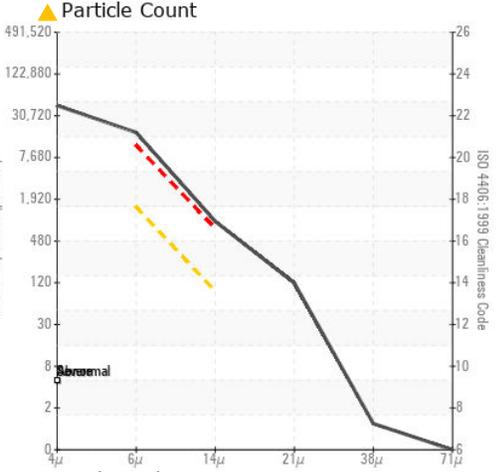
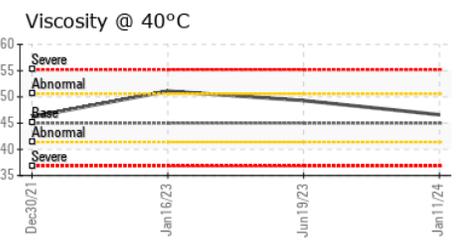
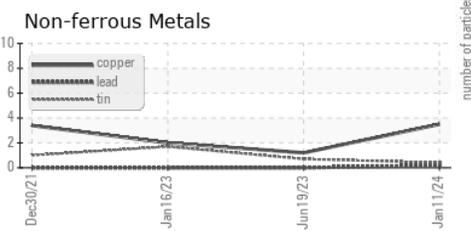
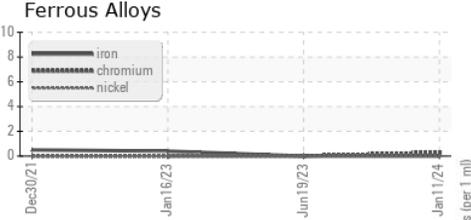


| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| 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  | 45      | 46.6     | 49.3     |

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

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA011932 **Received** : 30 Jan 2024  
**Lab Number** : 06074747 **Diagnosed** : 31 Jan 2024  
**Unique Number** : 10856838 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**ALRO STEEL**  
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 F: (502)637-4290

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)