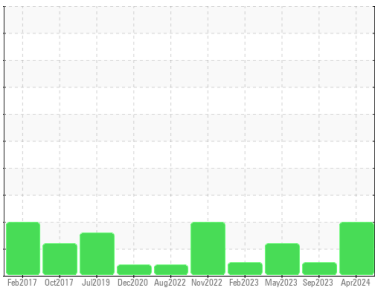
KAESER COMPRESSORS
Built for a lifetime.

# OIL ANALYSIS REPORT

Sample Rating Trend




ISO

Machine Id
## KAESER AS 25T 2727805 (S/N 1190)
Component
**Compressor**
Fluid
**KAESER SIGMA (OEM) S-460 (--- QTS)**

## DIAGNOSIS

**Recommendation**
Oil and 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 | | **KCPA017173** | KCPA003545 | KCPA001992 |
| Sample Date | | Client Info | | **16 Apr 2024** | 08 Sep 2023 | 26 May 2023 |
| Machine Age | hrs | Client Info | | **41493** | 39953 | 39238 |
| Oil Age | hrs | Client Info | | **2737** | 0 | 0 |
| Oil Changed | | Client Info | | **Changed** | N/A | N/A |
| Sample Status | | | | **ABNORMAL** | NORMAL | ABNORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >50 | **0** | 0 | <1 |
| Chromium | ppm | ASTM D5185m | >10 | **<1** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >3 | **<1** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >3 | **<1** | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | **<1** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | **3** | 3 | 0 |
| Lead | ppm | ASTM D5185m | >10 | **<1** | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | **7** | 2 | 1 |
| Tin | ppm | ASTM D5185m | >10 | **<1** | 0 | 0 |
| Vanadium | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | **<1** | 0 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Barium | ppm | ASTM D5185m | 90 | **<1** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | 90 | **12** | 41 | 75 |
| Calcium | ppm | ASTM D5185m | 2 | **0** | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | | **0** | 1 | 1 |
| Zinc | ppm | ASTM D5185m | | **26** | 21 | 17 |
| Sulfur | ppm | ASTM D5185m | | **19580** | 21685 | 22791 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >25 | **<1** | <1 | <1 |
| Sodium | ppm | ASTM D5185m | | **4** | 16 | 19 |
| Potassium | ppm | ASTM D5185m | >20 | **2** | 2 | 3 |
| Water | % | ASTM D6304 | >0.05 | **0.009** | 0.018 | 0.020 |
| ppm Water | ppm | ASTM D6304 | >500 | **93** | 189.8 | 208.0 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | | **7350** | 2064 | 11106 |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ **2506** | 535 | ▲ 2668 |
| Particles >14µm | | ASTM D7647 | >80 | ▲ **261** | 57 | ▲ 115 |
| Particles >21µm | | ASTM D7647 | >20 | ▲ **87** | 21 | 20 |
| Particles >38µm | | ASTM D7647 | >4 | ● **8** | 2 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | **1** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | ▲ **20/19/15** | 18/16/13 | ▲ 21/19/14 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.4 | **0.30** | 0.31 | 0.36 |

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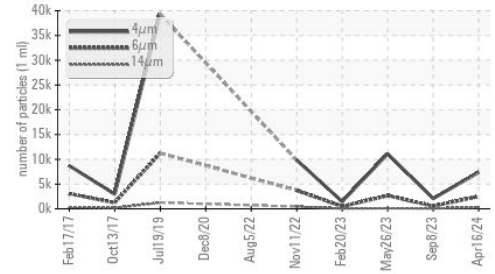
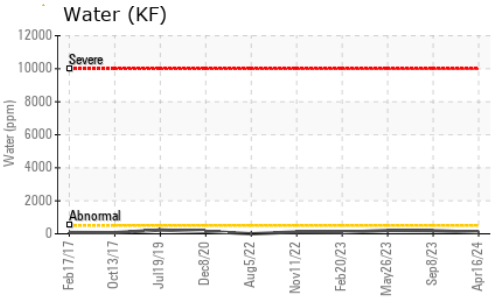
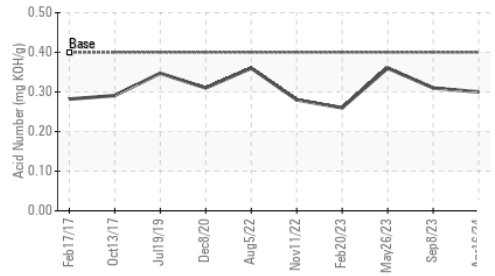
Particle Trend



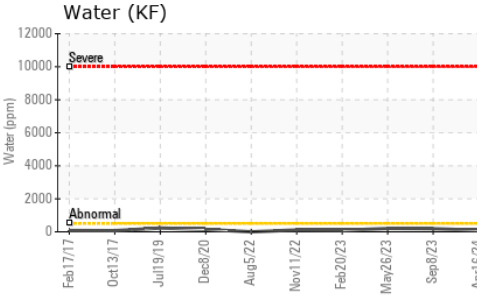

Water (KF)



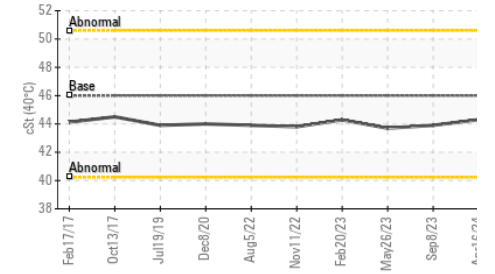

Acid Number




Water (KF)

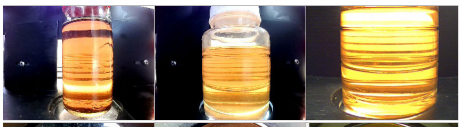



Viscosity @ 40°C



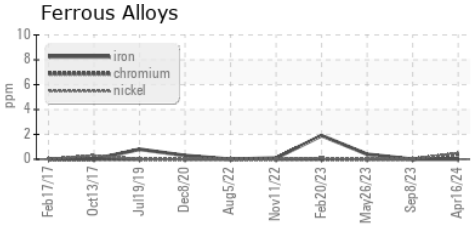

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
|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

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 46 | **44.3** | 43.9 | 43.7 |

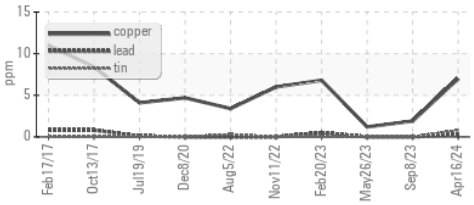
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

## GRAPHS

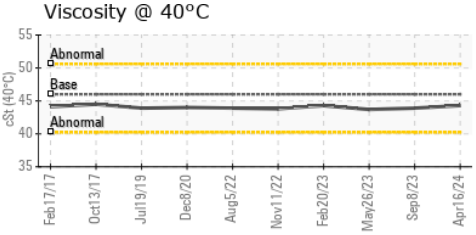
Ferrous Alloys



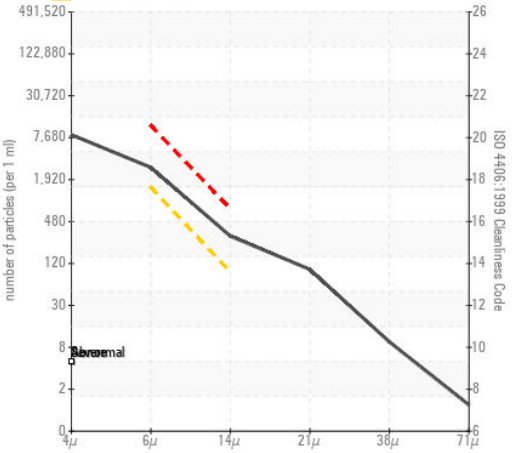

Non-ferrous Metals



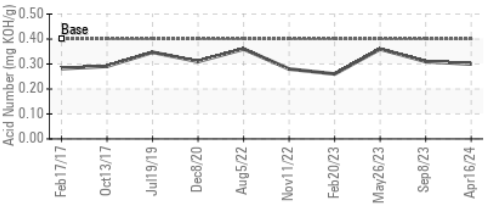

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : KCPA017173 **Received** : 22 Apr 2024
**Lab Number** : 06156928 **Tested** : 23 Apr 2024
**Unique Number** : 10992351 **Diagnosed** : 24 Apr 2024 - Angela Borella
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

*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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