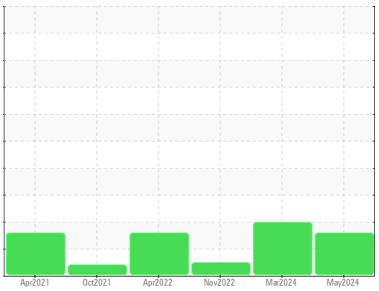
KAESER COMPRESSORS
Built for a lifetime.

# OIL ANALYSIS REPORT

Sample Rating Trend




ISO

Machine Id
## 7664177 (S/N 1608)
Component
**Compressor**
Fluid
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## DIAGNOSIS

**Recommendation**
We recommend you service the filters on this component. 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 | | **KC128262** | KC121609 | KC97309 |
| Sample Date | | Client Info | | **02 May 2024** | 22 Mar 2024 | 29 Nov 2022 |
| Machine Age | hrs | Client Info | | **18834** | 17851 | 12404 |
| Oil Age | hrs | Client Info | | **2632** | 0 | 3060 |
| Oil Changed | | Client Info | | **Not Changd** | N/A | Changed |
| Sample Status | | | | **ABNORMAL** | ABNORMAL | NORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >50 | **0** | 0 | 0 |
| Chromium | ppm | ASTM D5185m | >10 | **<1** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >3 | **0** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >3 | **<1** | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | **2** | 0 | 0 |
| Lead | ppm | ASTM D5185m | >10 | **<1** | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | **11** | 15 | 12 |
| Tin | ppm | ASTM D5185m | >10 | **<1** | 0 | <1 |
| Vanadium | ppm | ASTM D5185m | | **<1** | <1 | 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 | **2** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | 90 | **2** | 0 | <1 |
| Calcium | ppm | ASTM D5185m | 2 | **3** | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | | **4** | 0 | 10 |
| Zinc | ppm | ASTM D5185m | | **2** | 0 | 0 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >25 | **<1** | <1 | <1 |
| Sodium | ppm | ASTM D5185m | | **0** | 2 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | **2** | 0 | <1 |
| Water | % | ASTM D6304 | >0.05 | **0.007** | 0.005 | 0.008 |
| ppm Water | ppm | ASTM D6304 | >500 | **74** | 51 | 85.2 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | | **81542** | 111924 | 2185 |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ **29191** | ▲ 38578 | 858 |
| Particles >14µm | | ASTM D7647 | >80 | ▲ **2108** | ▲ 2145 | 59 |
| Particles >21µm | | ASTM D7647 | >20 | ▲ **406** | ▲ 394 | 25 |
| Particles >38µm | | ASTM D7647 | >4 | **3** | ▲ 8 | 2 |
| Particles >71µm | | ASTM D7647 | >3 | **0** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | ▲ **24/22/18** | ▲ 24/22/18 | 18/17/13 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.4 | **0.37** | 0.34 | 0.32 |

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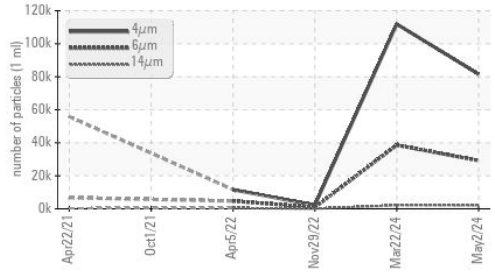
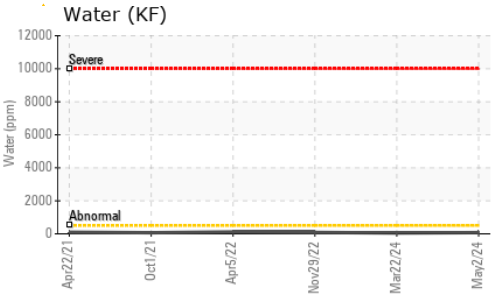
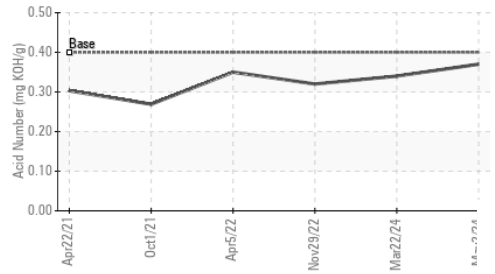
Particle Trend



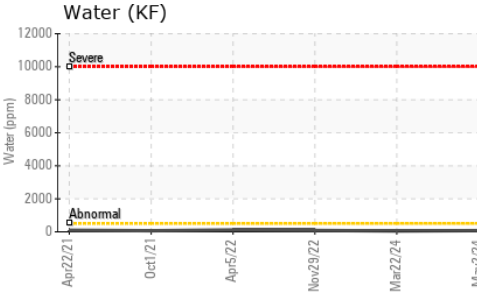

Water (KF)



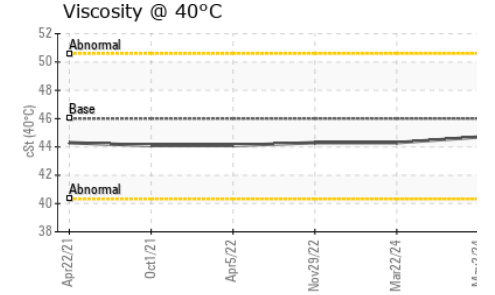

Acid Number




Water (KF)




Viscosity @ 40°C



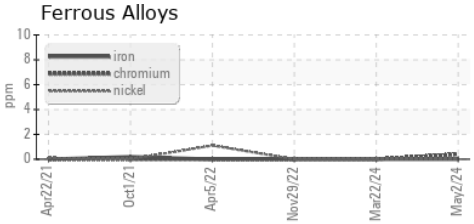

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| 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 | **44.7** | 44.3 | 44.3 |

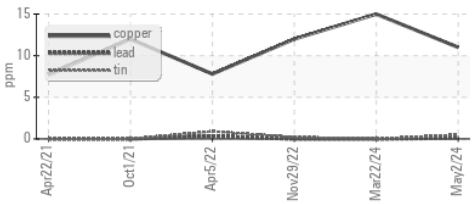
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

## GRAPHS

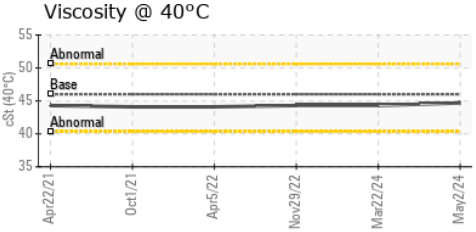
Ferrous Alloys



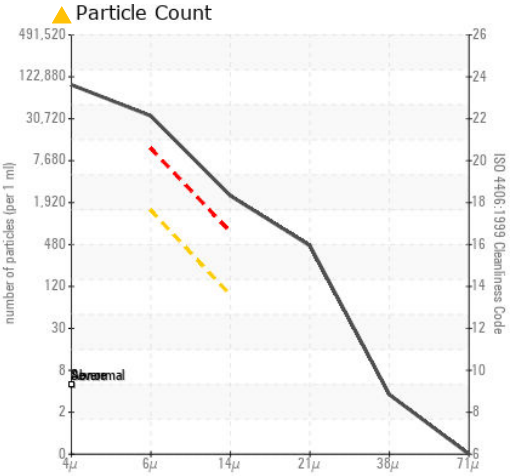

Non-ferrous Metals



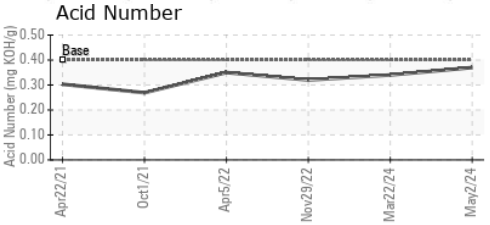

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : KC128262
**Lab Number** : 06177717
**Unique Number** : 11023770
**Test Package** : IND 2

**Received** : 13 May 2024
**Tested** : 14 May 2024
**Diagnosed** : 15 May 2024 - Angela Borella

**TECHNO-SOLIS**
301 20TH ST S
ST PETERSBURG, FL
US 33712
Contact: Service Manager
T:
F:

*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)*