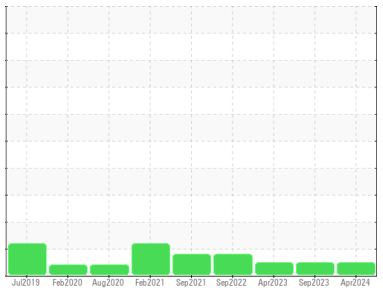
KAESER COMPRESSORS
Built for a lifetime.

# OIL ANALYSIS REPORT

Sample Rating Trend




NORMAL

Machine Id
## KAESER SK 15 6532183 (S/N 1220)
Component
**Compressor**
Fluid
**KAESER SIGMA (OEM) M-460 (--- GAL)**

## DIAGNOSIS

**Recommendation**
Resample at the next service interval to monitor.

**Wear**
All component wear rates are normal.

**Contamination**
There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable.

**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 | | **KCPA017105** | KCPA006430 | KCP52488 |
| Sample Date | | Client Info | | **11 Apr 2024** | 28 Sep 2023 | 10 Apr 2023 |
| Machine Age | hrs | Client Info | | **5237** | 4681 | 4562 |
| Oil Age | hrs | Client Info | | **798** | 0 | 0 |
| Oil Changed | | Client Info | | **Not Changd** | N/A | Not Changd |
| Sample Status | | | | **NORMAL** | NORMAL | NORMAL |

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

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 0 | **0** | 0 | 0 |
| Barium | ppm | ASTM D5185m | 90 | **49** | 31 | 62 |
| Molybdenum | ppm | ASTM D5185m | 0 | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **1** | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | 100 | **87** | 82 | 92 |
| Calcium | ppm | ASTM D5185m | 0 | **4** | 1 | <1 |
| Phosphorus | ppm | ASTM D5185m | 0 | **0** | 1 | 3 |
| Zinc | ppm | ASTM D5185m | 0 | **0** | <1 | 0 |
| Sulfur | ppm | ASTM D5185m | 23500 | **23023** | 22795 | 23242 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >25 | **0** | <1 | 0 |
| Sodium | ppm | ASTM D5185m | | **10** | 8 | 8 |
| Potassium | ppm | ASTM D5185m | >20 | **3** | 2 | <1 |
| Water | % | ASTM D6304 | >0.05 | **0.020** | 0.020 | 0.016 |
| ppm Water | ppm | ASTM D6304 | >500 | **204** | 205.0 | 167.4 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | | **1478** | 2775 | 1466 |
| Particles >6µm | | ASTM D7647 | >1300 | **482** | 904 | 360 |
| Particles >14µm | | ASTM D7647 | >80 | **23** | 38 | 12 |
| Particles >21µm | | ASTM D7647 | >20 | **5** | 7 | 1 |
| Particles >38µm | | ASTM D7647 | >4 | **1** | 0 | 0 |
| Particles >71µm | | ASTM D7647 | >3 | **0** | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | **18/16/12** | 19/17/12 | 18/16/11 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.0 | **0.37** | 0.32 | 0.38 |

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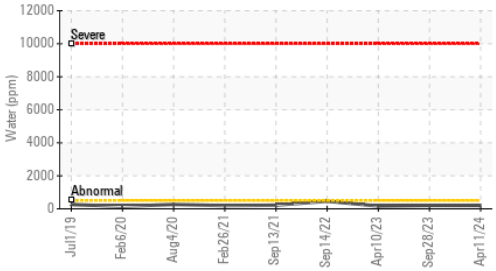
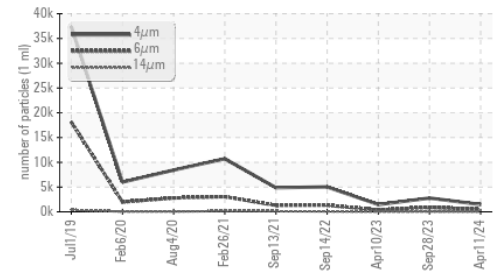
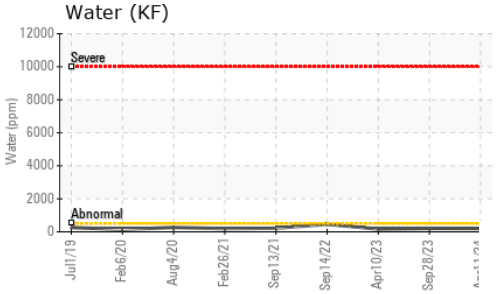
Water (KF)



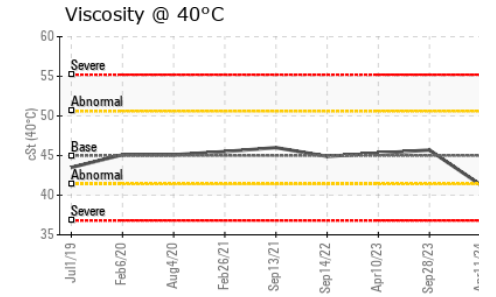

Particle Trend



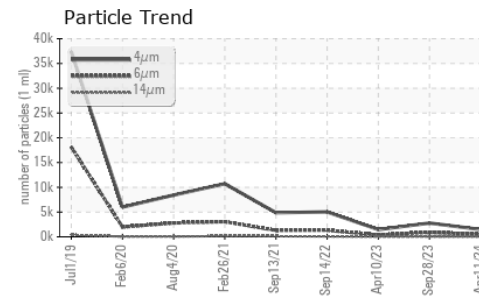

Water (KF)




Viscosity @ 40°C

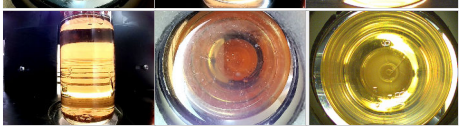



Particle Trend



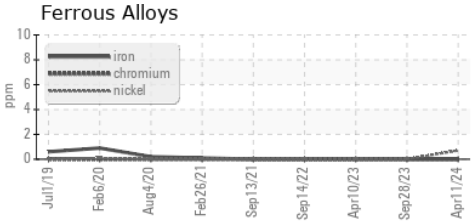

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| 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 | 45 | **41.3** | 45.7 | 45.3 |

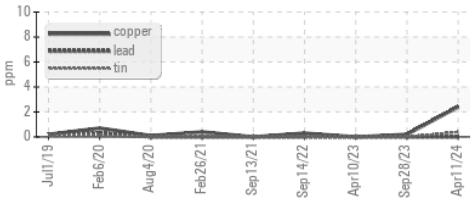
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

## GRAPHS

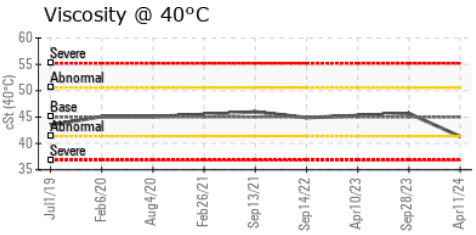
Ferrous Alloys



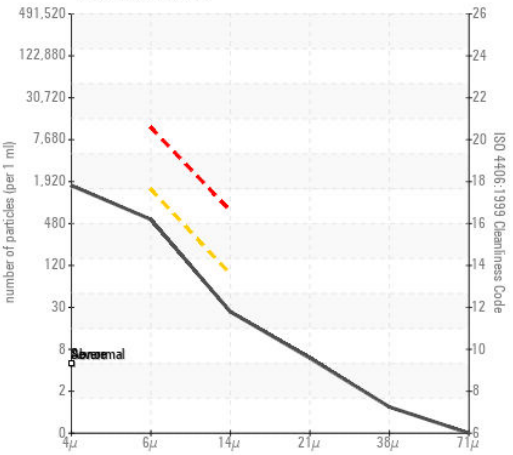

Non-ferrous Metals



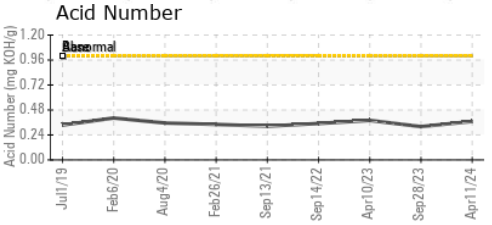

Viscosity @ 40°C




Particle Count




Acid Number




**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : KCPA017105
**Lab Number** : 06151210
**Unique Number** : 10981288
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**Received** : 16 Apr 2024
**Tested** : 19 Apr 2024
**Diagnosed** : 19 Apr 2024 - Don Baldridge

Certificate L2367

**AMAZON**
2601 4TH AVE E
SHAKOPEE, MN
US 55379
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)*

T:
F: