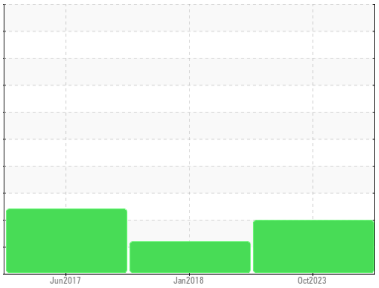
# PROBLEM SUMMARY

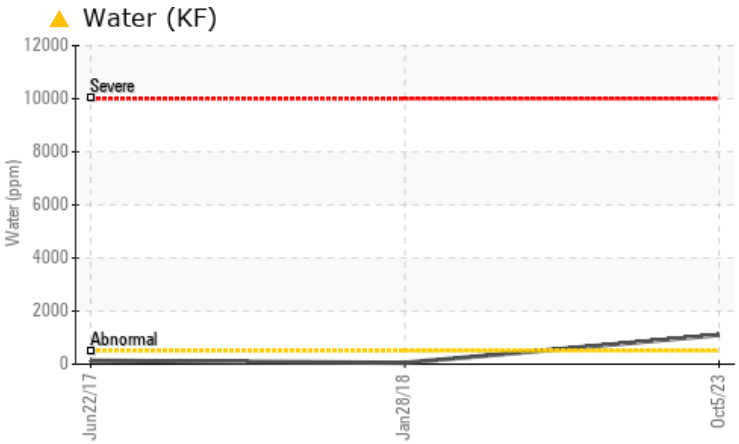
Sample Rating Trend




**WATER**

Machine Id
## KAESER SM 11 2700067 (S/N 1263)
Component
**Compressor**
Fluid
**KAESER SIGMA (OEM) M-460 (--- GAL)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

The filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in this sample. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

## PROBLEMATIC TEST RESULTS

| Sample Status | | | | **ABNORMAL** | ABNORMAL | ABNORMAL |
|---|---|---|---|---|---|---|
| Water | % | ASTM D6304 | >0.05 | ▲ **0.110** | 0.005 | 0.013 |
| ppm Water | ppm | ASTM D6304 | >500 | ▲ **1100** | 50 | 130 |
| Debris | scalar | *Visual | NONE | ▲ **MODER** | NONE | VLITE |
| Emulsified Water | scalar | *Visual | >0.05 | ▲ **0.2%** | NEG | NEG |

**Customer Id:** PENEAS
**Sample No.:** KCPA006915
**Lab Number:** 05981898
**Test Package:** IND 2

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
Don Baldridge +1
don.b505@comcast.net

*To change component or sample information:*
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

## RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---|---|---|---|---|
| Alert | --- | --- | ? | We were unable to perform a particle count due to a high concentration of particles present in this sample. |

## HISTORICAL DIAGNOSIS

**28 Jan 2018 Diag: Angela Borella**

ISO

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

**view report**

**22 Jun 2017 Diag: Jonathan Hester**

ISO

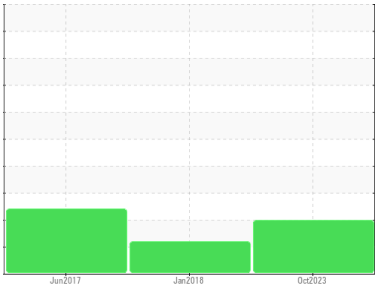
The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

**view report**

KAESER COMPRESSORS
Built for a lifetime.

# OIL ANALYSIS REPORT

Sample Rating Trend




**WATER**

Machine Id
## KAESER SM 11 2700067 (S/N 1263)
Component
**Compressor**
Fluid
**KAESER SIGMA (OEM) M-460 (--- GAL)**

## DIAGNOSIS

**Recommendation**
The filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in this sample. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

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

**Contamination**
Moderate concentration of visible dirt/debris present in the oil. There is a light concentration of water present in the oil.

**Fluid Condition**
The AN level is acceptable for this fluid.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Sample Number | | Client Info | | **KCPA006915** | KCP08680 | KCP01086 |
| Sample Date | | Client Info | | **05 Oct 2023** | 28 Jan 2018 | 22 Jun 2017 |
| Machine Age | hrs | Client Info | | **23202** | 23152 | 20147 |
| Oil Age | hrs | Client Info | | **0** | 0 | 2466 |
| Oil Changed | | Client Info | | **N/A** | Not Changd | Not Changd |
| Sample Status | | | | **ABNORMAL** | ABNORMAL | ABNORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >50 | **44** | 0 | <1 |
| Chromium | ppm | ASTM D5185m | >10 | **0** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >3 | **0** | <1 | 0 |
| Titanium | ppm | ASTM D5185m | >3 | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | **0** | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | **<1** | 0 | <1 |
| Lead | ppm | ASTM D5185m | >10 | **0** | <1 | <1 |
| Copper | ppm | ASTM D5185m | >50 | **5** | 4 | 3 |
| Tin | ppm | ASTM D5185m | >10 | **0** | 0 | 0 |
| Antimony | ppm | ASTM D5185m | | **---** | 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 | **7** | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | **0** | <1 | <1 |
| Manganese | ppm | ASTM D5185m | | **<1** | 0 | 0 |
| Magnesium | ppm | ASTM D5185m | 100 | **3** | <1 | 0 |
| Calcium | ppm | ASTM D5185m | 0 | **0** | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | 0 | **2** | 1 | 42 |
| Zinc | ppm | ASTM D5185m | 0 | **9** | <1 | 0 |
| Sulfur | ppm | ASTM D5185m | 23500 | **20604** | 16141 | 18103 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >25 | **<1** | <1 | <1 |
| Sodium | ppm | ASTM D5185m | | **1** | 0 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | **2** | 2 | 0 |
| Water | % | ASTM D6304 | >0.05 | ▲ **0.110** | 0.005 | 0.013 |
| ppm Water | ppm | ASTM D6304 | >500 | ▲ **1100** | 50 | 130 |

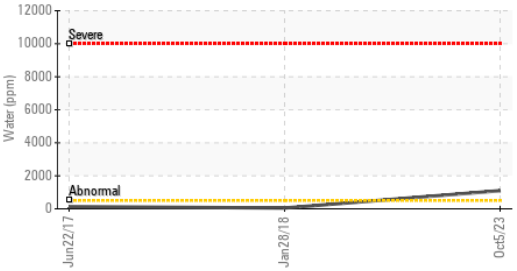
| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | | **---** | 9542 | 21610 |
| Particles >6µm | | ASTM D7647 | >1300 | **---** | ▲ 2600 | ▲ 8201 |
| Particles >14µm | | ASTM D7647 | >80 | **---** | ▲ 191 | ▲ 1660 |
| Particles >21µm | | ASTM D7647 | >20 | **---** | ▲ 52 | ▲ 656 |
| Particles >38µm | | ASTM D7647 | >4 | **---** | 2 | ▲ 67 |
| Particles >71µm | | ASTM D7647 | >3 | **---** | 0 | ▲ 4 |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | **---** | ▲ 19/15 | ▲ 20/18 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.0 | **0.584** | 0.518 | 0.511 |

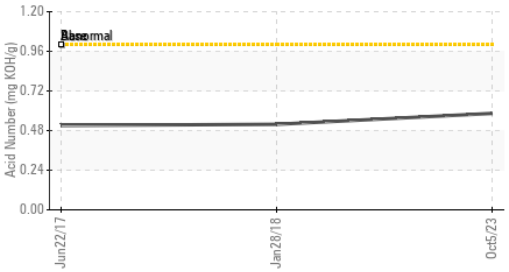
KAESER COMPRESSORS
Built for a lifetime.

# OIL ANALYSIS REPORT

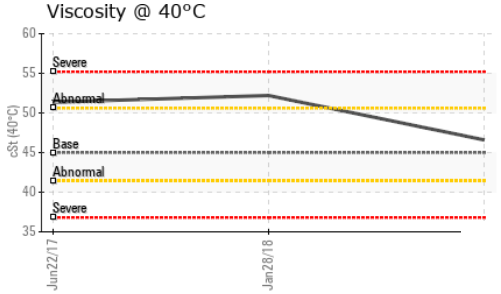
Water (KF)




Acid Number

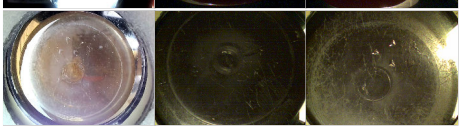



Viscosity @ 40°C



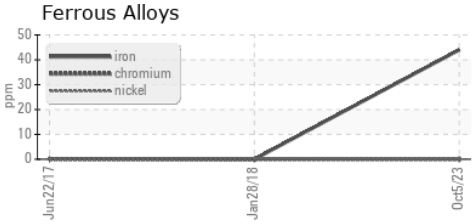

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Debris | scalar | *Visual | NONE | ▲ **MODER** | NONE | VLITE |
| 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 | ▲ **0.2%** | NEG | NEG |
| Free Water | scalar | *Visual | | **NEG** | NEG | NEG |

| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 45 | **46.6** | 52.2 | 51.36 |

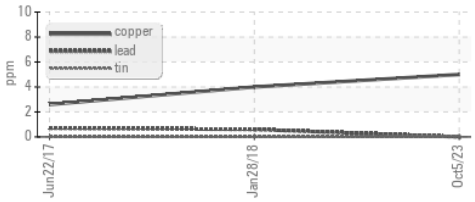
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

## GRAPHS

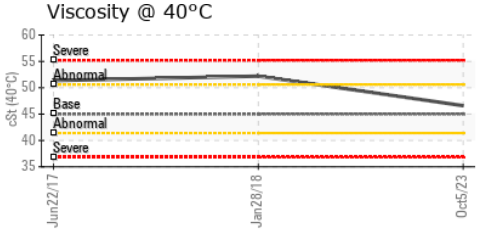
Ferrous Alloys



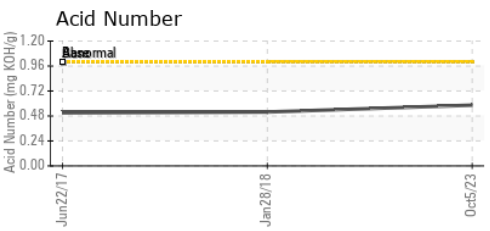

Non-ferrous Metals




Viscosity @ 40°C




Acid Number




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : KCPA006915 **Received** : 17 Oct 2023
**Lab Number** : 05981898 **Diagnosed** : 19 Oct 2023
**Unique Number** : 10699193 **Diagnostician** : Don Baldridge
**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)*

**PENSKE TRUCK LEASING**
10 SHOHAM RD
EAST WINDSOR, CT
US 06088
Contact: JOANN BELLENO
joann.belleno@penske.com
T:
F: