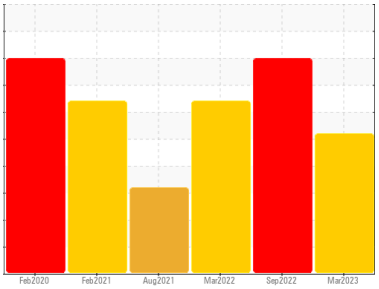
# PROBLEM SUMMARY

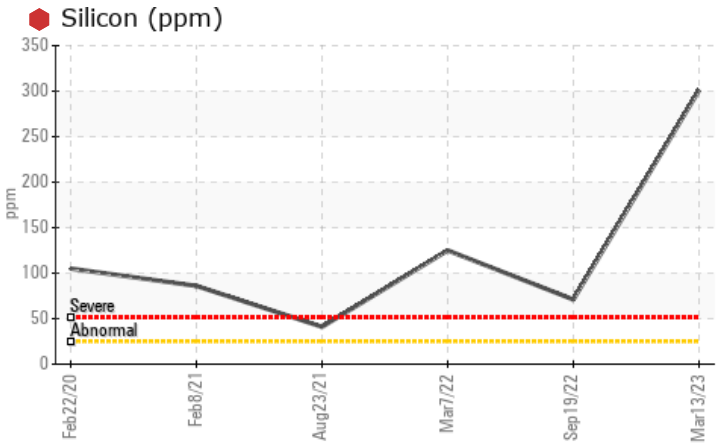
**Sample Rating Trend**




**DIRT**

Machine Id
## KAESER SFC 37T 6711651 (S/N 1102)
Component
**Compressor**
Fluid
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

Oil and 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 recommend an early resample in 500 hours to monitor this condition.

## PROBLEMATIC TEST RESULTS

| | | | | | | |
|---|---|---|---|---|---|---|
| Sample Status | | | | **SEVERE** | SEVERE | SEVERE |
| Silicon | ppm | ASTM D5185m | >25 | **301** | 71 | 125 |
| Debris | scalar | *Visual | NONE | **MODER** | LIGHT | NONE |

**Customer Id:** SILEAS
**Sample No.:** KC106109
**Lab Number:** 05802445
**Test Package:** IND 2

*To manage this report scan the QR code*

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jhester@wearcheckusa.com

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

## RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---|---|---|---|---|
| Change Fluid | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |
| Change Filter | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |
| Alert | --- | --- | ? | We were unable to perform a particle count due to a high concentration of particles present in this sample. |

## HISTORICAL DIAGNOSIS

**19 Sep 2022 Diag: Don Baldridge**

DIRT

We advise that you check all areas where dirt can enter the system. There is too much water present in this sample to perform a particle count. 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.All component wear rates are normal. Elemental level of silicon (Si) above normal. There is a light concentration of water present in the oil. Free water present. The AN level is acceptable for this fluid.

view report

**07 Mar 2022 Diag: Don Baldridge**

DIRT

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.All component wear rates are normal. There is a high amount of particulates present in the oil. Elemental level of silicon (Si) above normal indicating ingress of seal material. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

**23 Aug 2021 Diag: Angela Borella**

DIRT

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. Elemental level of silicon (Si) above normal indicating ingress of seal material. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

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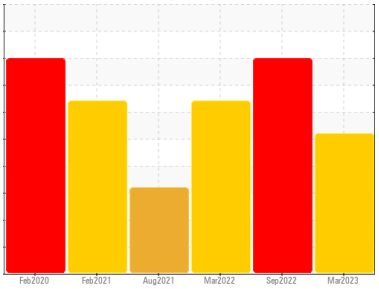
# OIL ANALYSIS REPORT

Sample Rating Trend




DIRT

Machine Id
## KAESER SFC 37T 6711651 (S/N 1102)
Component
**Compressor**
Fluid
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## DIAGNOSIS

**Recommendation**
Oil and 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 recommend an early resample in 500 hours to monitor this condition.

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

**Contamination**
Elemental level of silicon (Si) above normal indicating ingress of seal material. Moderate concentration of visible dirt/debris 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 | | **KC106109** | KC103118 | KC92610 |
| Sample Date | | Client Info | | **13 Mar 2023** | 19 Sep 2022 | 07 Mar 2022 |
| Machine Age | hrs | Client Info | | **23159** | 20202 | 16766 |
| Oil Age | hrs | Client Info | | **6393** | 3436 | 7144 |
| Oil Changed | | Client Info | | **Changed** | Not Changd | Changed |
| Sample Status | | | | **SEVERE** | SEVERE | SEVERE |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >50 | **0** | <1 | <1 |
| Chromium | ppm | ASTM D5185m | >10 | **0** | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >3 | **0** | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >3 | **0** | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | **0** | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >10 | **<1** | 7 | 2 |
| Lead | ppm | ASTM D5185m | >10 | **0** | <1 | 0 |
| Copper | ppm | ASTM D5185m | >50 | **6** | 13 | 8 |
| Tin | ppm | ASTM D5185m | >10 | **0** | <1 | <1 |
| Antimony | ppm | ASTM D5185m | | **---** | --- | --- |
| 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 | 1 |
| Barium | ppm | ASTM D5185m | 90 | **0** | 7 | 0 |
| Molybdenum | ppm | ASTM D5185m | | **0** | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | **0** | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | 90 | **<1** | 8 | 0 |
| Calcium | ppm | ASTM D5185m | 2 | **0** | <1 | 0 |
| Phosphorus | ppm | ASTM D5185m | | **2** | 8 | 2 |
| Zinc | ppm | ASTM D5185m | | **0** | 20 | 3 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >25 | **301** | 71 | 125 |
| Sodium | ppm | ASTM D5185m | | **0** | 0 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | **0** | 2 | 0 |
| Water | % | ASTM D6304 | >0.05 | **0.007** | 0.324 | 0.004 |
| ppm Water | ppm | ASTM D6304 | >500 | **78.0** | 3240 | 41.6 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Particles >4µm | | ASTM D7647 | | **---** | --- | 14067 |
| Particles >6µm | | ASTM D7647 | >1300 | **---** | --- | 3861 |
| Particles >14µm | | ASTM D7647 | >80 | **---** | --- | 486 |
| Particles >21µm | | ASTM D7647 | >20 | **---** | --- | 193 |
| Particles >38µm | | ASTM D7647 | >4 | **---** | --- | 10 |
| Particles >71µm | | ASTM D7647 | >3 | **---** | --- | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | **---** | --- | 19/16 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.4 | **0.41** | 0.39 | 0.45 |

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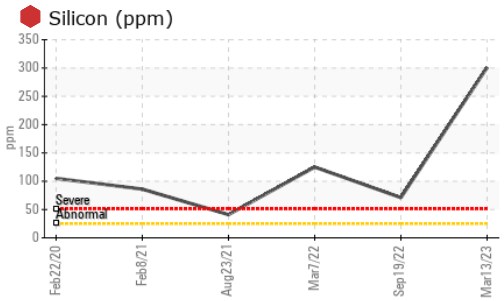
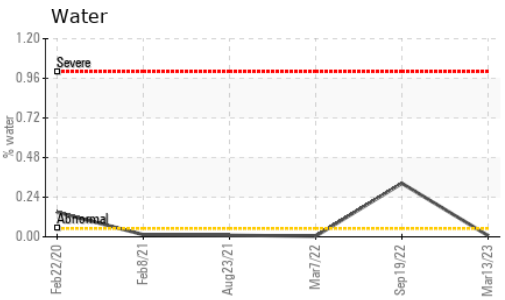
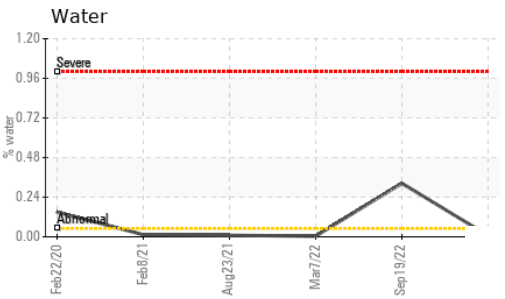
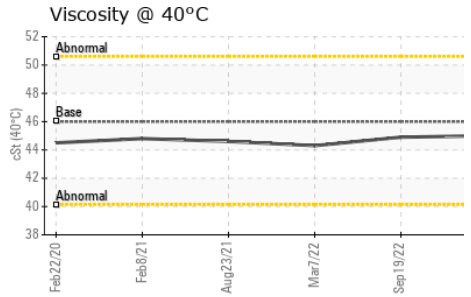
# OIL ANALYSIS REPORT



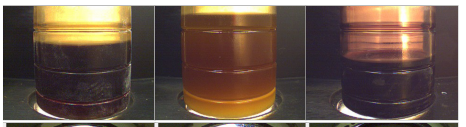
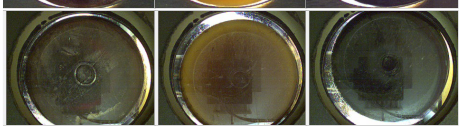



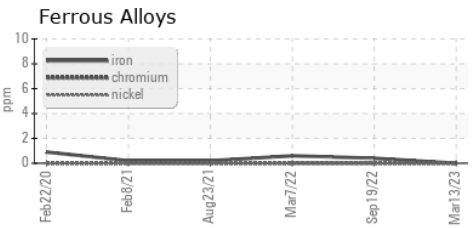



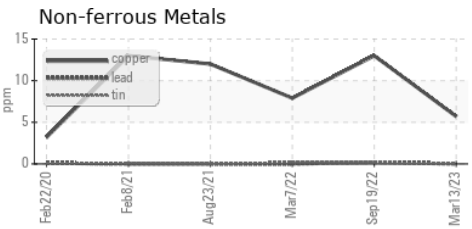

| VISUAL | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Silt | scalar | *Visual | NONE | **NONE** | NONE | NONE |
| Debris | scalar | *Visual | NONE | ▲ **MODER** | LIGHT | 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** | ▲ 0.2% | NEG |
| Free Water | scalar | *Visual | | **NEG** | ▲ 1.0 | NEG |

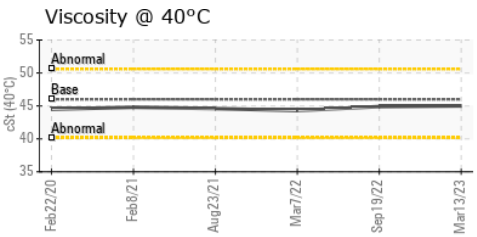
| FLUID PROPERTIES | | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 46 | **45.0** | 44.9 | 44.3 |

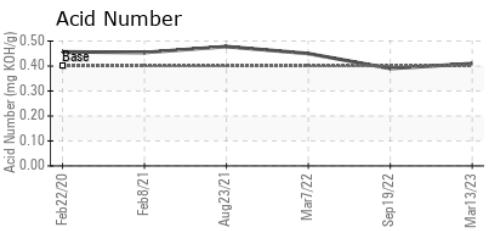
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---|---|---|---|---|---|
| Color | | |  | | |
| Bottom | | |  | | |

## GRAPHS




Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513
**Sample No.** : KC106109
**Lab Number** : 05802445
**Unique Number** : 10399974
**Test Package** : IND 2

**Received** : 27 Mar 2023
**Diagnosed** : 30 Mar 2023
**Diagnostician** : Jonathan Hester

**SILBRICO**
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EASTON, PA
US 18040
Contact: Service Manager
T:
F:

*To discuss this sample report, contact Customer Service at 1-800-237-1369.*
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*Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)*