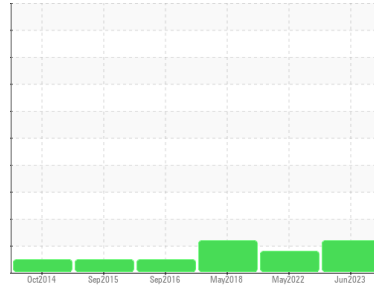




PROBLEM SUMMARY

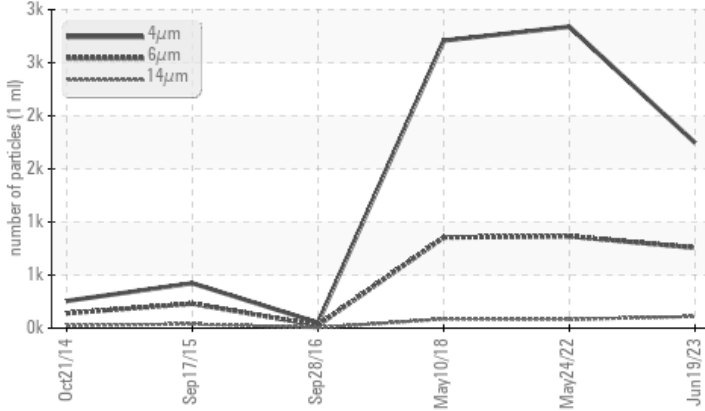
Sample Rating Trend



Machine Id
KAESER CSD 1005T 4621512 (S/N 1025)
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) S-460 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

| Sample Status | | | ATTENTION | ATTENTION | ATTENTION |
|-----------------|--------------|-----------|------------|------------|-----------|
| Particles >14µm | ASTM D7647 | >80 | ▲ 110 | ▲ 82 | ▲ 86 |
| Particles >21µm | ASTM D7647 | >20 | ▲ 31 | 13 | ▲ 27 |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13 | ▲ 18/17/14 | ▲ 19/17/14 | ▲ 17/14 |

Customer Id: KEHELK
 Sample No.: KCPA001938
 Lab Number: 05934374
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

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

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

24 May 2022 Diag: Jonathan Hester

ISO



No corrective action is recommended at this time. Oil and 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 moderate 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



10 May 2018 Diag: Jonathan Hester

ISO



No corrective action is recommended at this time. Oil and 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 moderate 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



28 Sep 2016 Diag: Jonathan Hester

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the component. The amount and size of particulates present in the system is acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

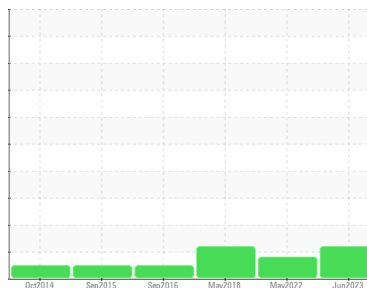
view report



Machine Id
KAESER CSD 1005T 4621512 (S/N 1025)

Component
Compressor

Fluid
KAESER SIGMA (OEM) S-460 (--- GAL)



DIAGNOSIS

Recommendation

No corrective action is recommended at this time. The 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 moderate amount of particulates present in the oil.

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 | KCPA001938 | KCP50865 | KCP07794 |
| Sample Date | Client Info | 19 Jun 2023 | 24 May 2022 | 10 May 2018 |
| Machine Age | hrs | 61128 | 55047 | 30535 |
| Oil Age | hrs | 0 | 5900 | 0 |
| Oil Changed | Client Info | N/A | Changed | Changed |
| Sample Status | | ATTENTION | ATTENTION | ATTENTION |

WEAR METALS

| method | limit/base | current | history1 | history2 | |
|----------|------------|-----------------|--------------|----------|----|
| Iron | ppm | ASTM D5185m >50 | <1 | 0 | <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 | 0 |
| Aluminum | ppm | ASTM D5185m >10 | 0 | <1 | 0 |
| Lead | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m >50 | 8 | 10 | 8 |
| Tin | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Antimony | ppm | ASTM D5185m | --- | --- | 6 |
| 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 | <1 | 0 |
| Barium | ppm | ASTM D5185m 90 | 0 | 3 | 14 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | 0 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m 90 | 26 | 42 | 49 |
| Calcium | ppm | ASTM D5185m 2 | 0 | 0 | 1 |
| Phosphorus | ppm | ASTM D5185m | 1 | 1 | <1 |
| Zinc | ppm | ASTM D5185m | 18 | 14 | 9 |
| Sulfur | ppm | ASTM D5185m | 19604 | 16104 | 12310 |

CONTAMINANTS

| method | limit/base | current | history1 | history2 | |
|-----------|------------|------------------|--------------|----------|-------|
| Silicon | ppm | ASTM D5185m >25 | <1 | 0 | 0 |
| Sodium | ppm | ASTM D5185m | 3 | 29 | 23 |
| Potassium | ppm | ASTM D5185m >20 | 2 | 2 | 6 |
| Water | % | ASTM D6304 >0.05 | 0.029 | 0.026 | 0.015 |
| ppm Water | ppm | ASTM D6304 >500 | 293.0 | 260.9 | 150 |

FLUID CLEANLINESS

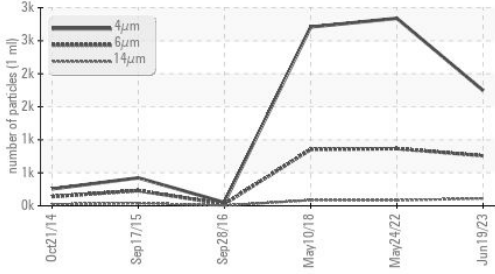
| method | limit/base | current | history1 | history2 |
|-----------------|------------------------|-------------------|------------|----------|
| Particles >4µm | ASTM D7647 | 1746 | 2839 | 2708 |
| Particles >6µm | ASTM D7647 >1300 | 757 | 865 | 854 |
| Particles >14µm | ASTM D7647 >80 | ▲ 110 | ▲ 82 | ▲ 86 |
| Particles >21µm | ASTM D7647 >20 | ▲ 31 | 13 | ▲ 27 |
| Particles >38µm | ASTM D7647 >4 | 0 | 1 | ▲ 7 |
| Particles >71µm | ASTM D7647 >3 | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) >--/17/13 | ▲ 18/17/14 | ▲ 19/17/14 | ▲ 17/14 |

FLUID DEGRADATION

| method | limit/base | current | history1 | history2 | |
|------------------|------------|----------------|-------------|----------|-------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.4 | 0.39 | 0.34 | 0.326 |

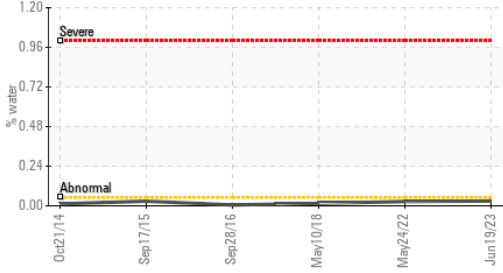
OIL ANALYSIS REPORT

▲ Particle Trend



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

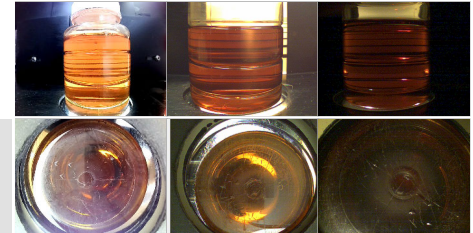
Water



| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 46 | 45.1 | 44.3 |

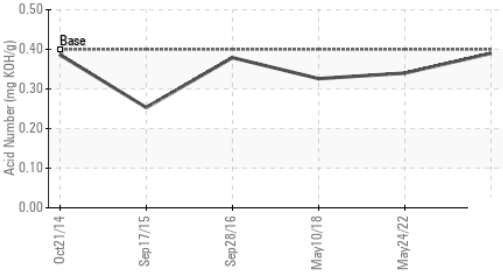
| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|

Color

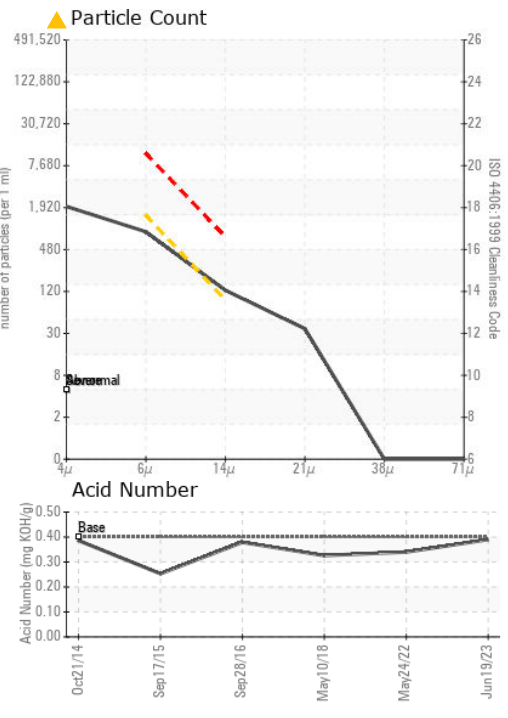
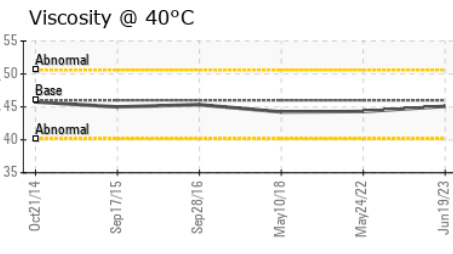
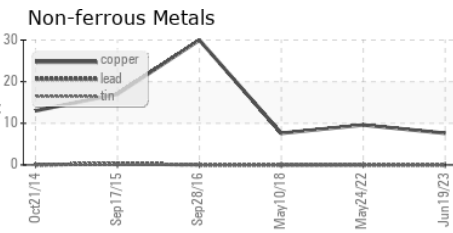
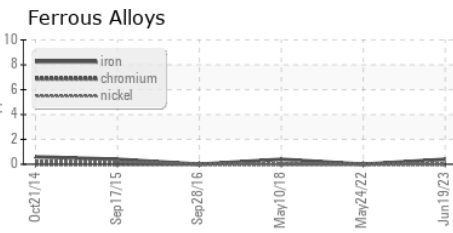


Bottom

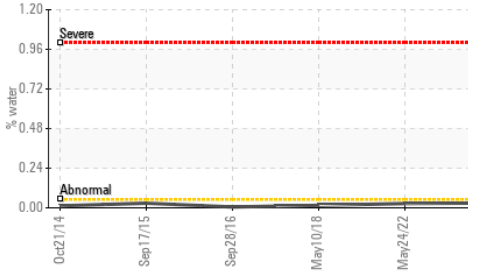
Acid Number



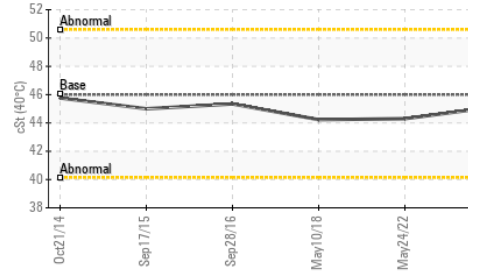
GRAPHS



Water



Viscosity @ 40°C



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA001938 **Received** : 24 Aug 2023
Lab Number : 05934374 **Diagnosed** : 28 Aug 2023
Unique Number : 10619645 **Diagnostician** : Doug Bogart
Test Package : IND 2 (Additional Tests: KF, PrtCount)

KEHE DISTRIBUTORS
 4055 DEERPARK BLVD
 ELKTON, FL
 US 32033
 Contact: BUTCH ROACH
 butch.roach@kehe.com

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: