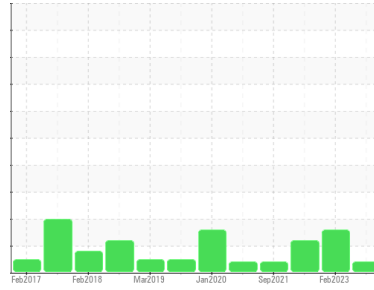




PROBLEM SUMMARY

Sample Rating Trend



VIS DEBRIS



Machine Id
KAESER CSD 75 5567023 (S/N 1218)

Component
Compressor

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

COMPONENT CONDITION SUMMARY

No relevant graphs to display

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. We were unable to perform a particle count due to a high concentration of particles present in this sample.

PROBLEMATIC TEST RESULTS

| Sample Status | | ABNORMAL | ABNORMAL | ATTENTION |
|---------------|----------------|----------|----------|-----------|
| Debris | scalar *Visual | ▲ MODER | LIGHT | NONE |

Customer Id: ISOSOC
Sample No.: KCPA007630
Lab Number: 05997393
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Don Baldrige +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

14 Feb 2023 Diag: Don Baldrige

ISO



Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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 Feb 2022 Diag: Angela Borella

ISO



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 silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



24 Sep 2021 Diag: Doug Bogart

VIS DEBRIS



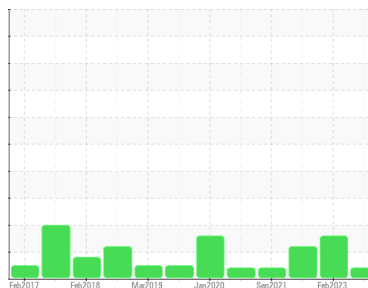
No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Machine Id
KAESER CSD 75 5567023 (S/N 1218)

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. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Wear

All component wear rates are normal.

▲ Contamination

Moderate concentration of visible dirt/debris 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 | | | KCPA007630 | KCP55423 | KCP35214 |
| Sample Date | Client Info | | | 16 Oct 2023 | 14 Feb 2023 | 22 Feb 2022 |
| Machine Age | hrs | Client Info | | 57556 | 51751 | 47027 |
| Oil Age | hrs | Client Info | | 0 | 8000 | 8800 |
| Oil Changed | Client Info | | | N/A | Changed | Changed |
| Sample Status | | | | ABNORMAL | ABNORMAL | ATTENTION |

| 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 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | <1 |
| Aluminum | ppm | ASTM D5185m | >10 | <1 | 0 | <1 |
| Lead | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m | >50 | 7 | 5 | 10 |
| Tin | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Antimony | ppm | ASTM D5185m | | --- | --- | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |

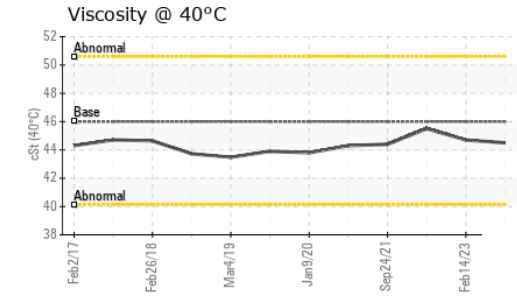
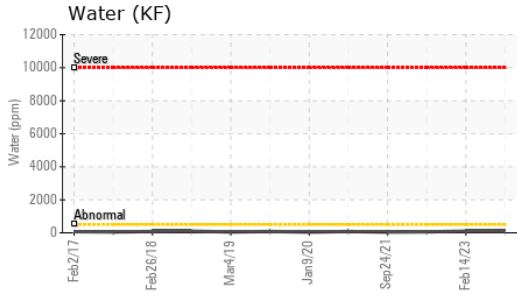
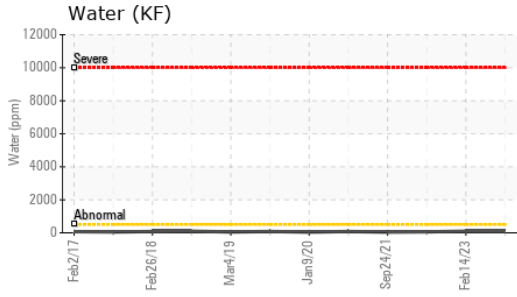
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Barium | ppm | ASTM D5185m | 90 | 0 | 2 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | 90 | <1 | 2 | 0 |
| Calcium | ppm | ASTM D5185m | 2 | 0 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | | 0 | 8 | 0 |
| Zinc | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Sulfur | ppm | ASTM D5185m | | 15067 | 11768 | 11039 |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >25 | 0 | <1 | 0 |
| Sodium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Potassium | ppm | ASTM D5185m | >20 | 2 | <1 | <1 |
| Water | % | ASTM D6304 | >0.05 | 0.008 | 0.010 | 0.005 |
| ppm Water | ppm | ASTM D6304 | >500 | 83.6 | 100.1 | 58.5 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|------------|------------|----------|
| Particles >4µm | | ASTM D7647 | | --- | 20521 | 4760 |
| Particles >6µm | | ASTM D7647 | >1300 | --- | ▲ 4818 | ▲ 1420 |
| Particles >14µm | | ASTM D7647 | >80 | --- | ▲ 259 | ▲ 153 |
| Particles >21µm | | ASTM D7647 | >20 | --- | ▲ 63 | ▲ 42 |
| Particles >38µm | | ASTM D7647 | >4 | --- | 4 | 6 |
| Particles >71µm | | ASTM D7647 | >3 | --- | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | --- | ▲ 22/19/15 | ▲ 18/14 |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.4 | 0.40 | 0.39 | 0.41 |

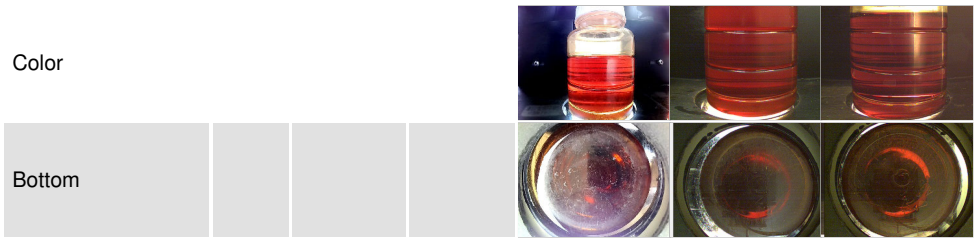
OIL ANALYSIS REPORT



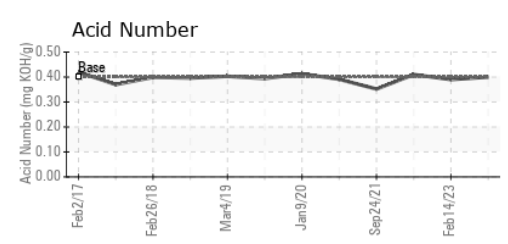
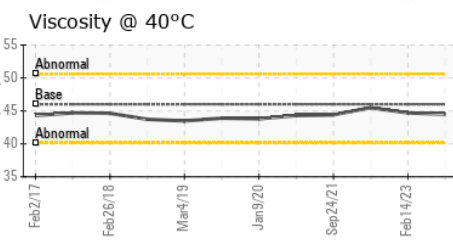
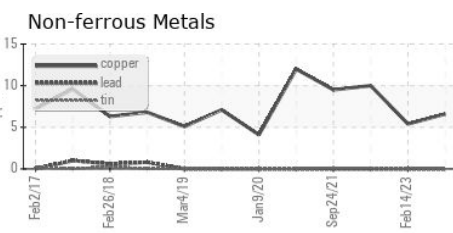
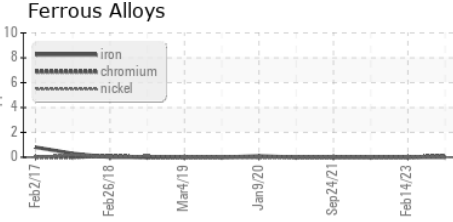
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | ▲ MODER | LIGHT | 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 |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 46 | 44.5 | 44.7 | 45.5 |

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA007630 **Received** : 02 Nov 2023
Lab Number : 05997393 **Diagnosed** : 05 Nov 2023
Unique Number : 10725753 **Diagnostician** : Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PrtCount)

ISONOVA TECHNOLOGIES
 1022 E HIGHTOWER TR
 SOCIAL CIRCLE, GA
 US 30025
 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: