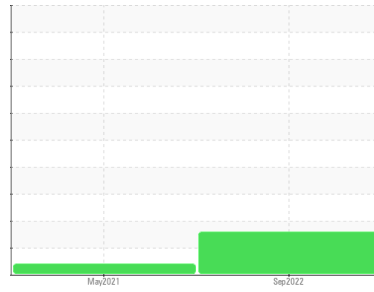


PROBLEM SUMMARY

Sample Rating Trend



ISO



Machine Id
KAESER 6989720

Component
Compressor

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

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

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.

PROBLEMATIC TEST RESULTS

| Sample Status | | | ABNORMAL | ABNORMAL | --- |
|-----------------|--------------|-----------|-------------------|----------|-----|
| Particles >6µm | ASTM D7647 | >1300 | ▲ 10667 | --- | --- |
| Particles >14µm | ASTM D7647 | >80 | ▲ 237 | --- | --- |
| Particles >21µm | ASTM D7647 | >20 | ▲ 70 | --- | --- |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13 | ▲ 22/21/15 | --- | --- |

Customer Id: VICHAY
Sample No.: KCP37334
Lab Number: 05639076
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 |
|---------------|--------|------|---------|---|
| 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. |

HISTORICAL DIAGNOSIS

11 May 2021 Diag: Don Baldrige

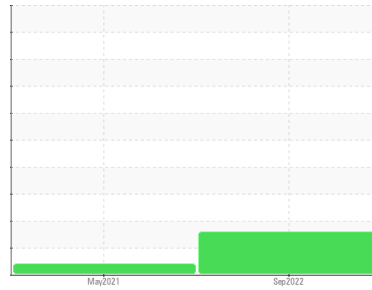
VIS DEBRIS



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. 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 6989720

Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

▲ Recommendation

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.

Wear

All component wear rates are normal.

▲ Contamination

There is a high 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 | history 1 | history 2 |
|---------------|--------|------------|--------------------|-------------|-----------|
| Sample Number | | | KCP37334 | KCP32019 | --- |
| Sample Date | | | 11 Sep 2022 | 11 May 2021 | --- |
| Machine Age | hrs | | 4526 | 1233 | --- |
| Oil Age | hrs | | 3000 | 0 | --- |
| Oil Changed | | | Changed | Changed | --- |
| Sample Status | | | ABNORMAL | ABNORMAL | --- |

WEAR METALS

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

ADDITIVES

| | method | limit/base | current | history 1 | history 2 |
|------------|--------|-------------------|--------------|-----------|-----------|
| Boron | ppm | ASTM D5185m 0 | 0 | 10 | --- |
| Barium | ppm | ASTM D5185m 90 | 6 | 33 | --- |
| Molybdenum | ppm | ASTM D5185m 0 | 0 | 0 | --- |
| Manganese | ppm | ASTM D5185m | <1 | <1 | --- |
| Magnesium | ppm | ASTM D5185m 100 | 47 | 79 | --- |
| Calcium | ppm | ASTM D5185m 0 | <1 | 1 | --- |
| Phosphorus | ppm | ASTM D5185m 0 | 5 | 4 | --- |
| Zinc | ppm | ASTM D5185m 0 | 5 | 0 | --- |
| Sulfur | ppm | ASTM D5185m 23500 | 17367 | 16259 | --- |

CONTAMINANTS

| | method | limit/base | current | history 1 | history 2 |
|-----------|--------|------------------|--------------|-----------|-----------|
| Silicon | ppm | ASTM D5185m >25 | <1 | 0 | --- |
| Sodium | ppm | ASTM D5185m | 9 | 12 | --- |
| Potassium | ppm | ASTM D5185m >20 | 1 | 4 | --- |
| Water | % | ASTM D6304 >0.05 | 0.029 | 0.020 | --- |
| ppm Water | ppm | ASTM D6304 >500 | 291.1 | 202.3 | --- |

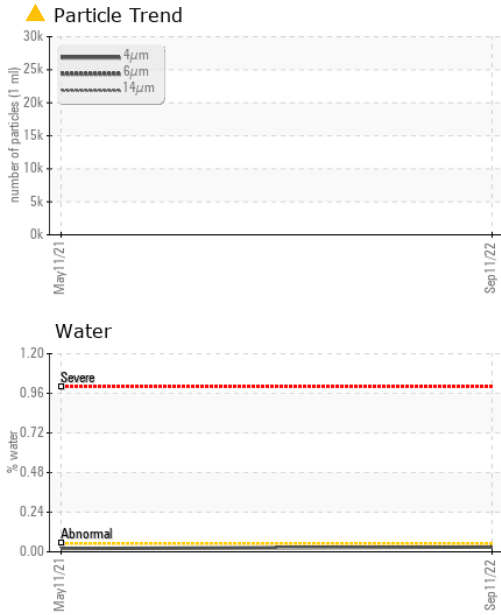
FLUID CLEANLINESS

| | method | limit/base | current | history 1 | history 2 |
|-----------------|--------------|------------|-------------------|-----------|-----------|
| Particles >4µm | ASTM D7647 | | 29562 | --- | --- |
| Particles >6µm | ASTM D7647 | >1300 | ▲ 10667 | --- | --- |
| Particles >14µm | ASTM D7647 | >80 | ▲ 237 | --- | --- |
| Particles >21µm | ASTM D7647 | >20 | ▲ 70 | --- | --- |
| Particles >38µm | ASTM D7647 | >4 | 2 | --- | --- |
| Particles >71µm | ASTM D7647 | >3 | 0 | --- | --- |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13 | ▲ 22/21/15 | --- | --- |

FLUID DEGRADATION

| | method | limit/base | current | history 1 | history 2 |
|------------------|----------|----------------|-------------|-----------|-----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 1.0 | 0.35 | 0.326 | --- |

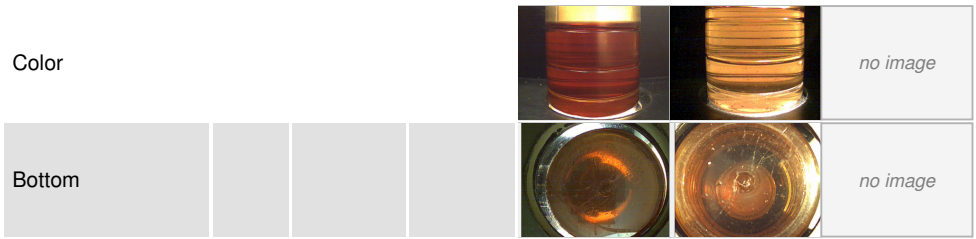
OIL ANALYSIS REPORT



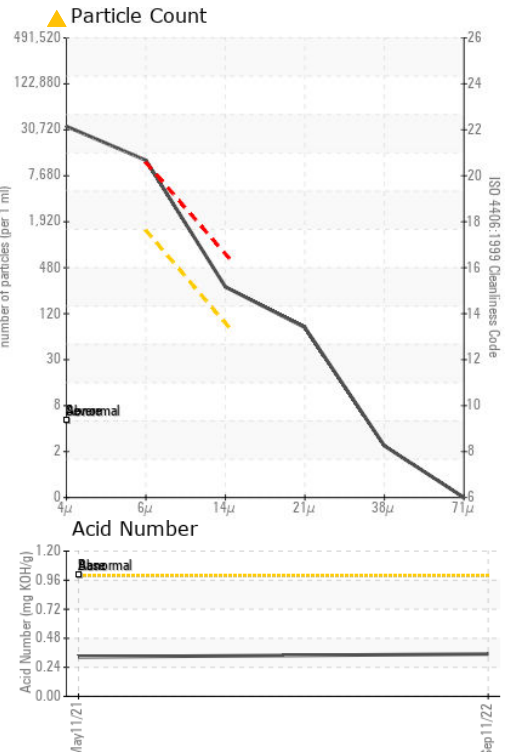
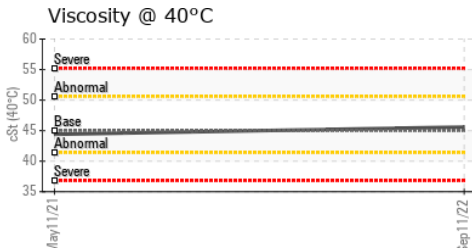
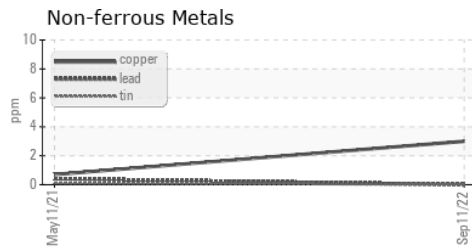
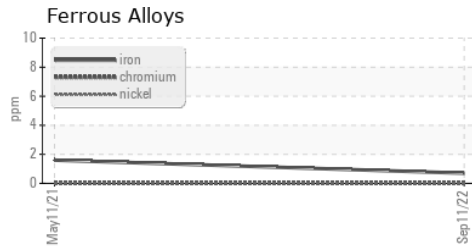
| VISUAL | method | limit/base | current | history 1 | history 2 |
|------------------|--------|------------|---------|-----------|-----------|
| White Metal | scalar | *Visual | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- |
| Silt | scalar | *Visual | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | NONE | ▲ MODER |
| Sand/Dirt | scalar | *Visual | NONE | NONE | --- |
| Appearance | scalar | *Visual | NORML | NORML | --- |
| Odor | scalar | *Visual | NORML | NORML | --- |
| Emulsified Water | scalar | *Visual | >0.05 | NEG | --- |
| Free Water | scalar | *Visual | | NEG | --- |

| FLUID PROPERTIES | method | limit/base | current | history 1 | history 2 |
|------------------|--------|------------|---------|-----------|-----------|
| Visc @ 40°C | cSt | ASTM D445 | 45 | 45.6 | 44.4 |

| SAMPLE IMAGES | method | limit/base | current | history 1 | history 2 |
|---------------|--------|------------|---------|-----------|-----------|
|---------------|--------|------------|---------|-----------|-----------|



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP37334 **Received** : 12 Sep 2022
Lab Number : 05639076 **Diagnosed** : 14 Sep 2022
Unique Number : 10128606 **Diagnostician** : Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PrtCount)

VICARIOUS
 1256 SAN LUIS OBISBO AVE
 HAYWARD, CA
 USA 94587
 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)