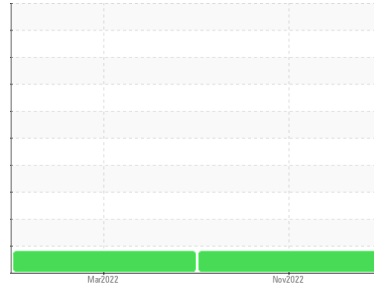




OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id
KAESER 7894333

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

DIAGNOSIS

Recommendation

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.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of silt (particulates < 14 microns in size) 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 | KCP47060 | KCP44152 | --- |
| Sample Date | Client Info | 16 Nov 2022 | 17 Mar 2022 | --- |
| Machine Age | hrs | 5460 | 833 | --- |
| Oil Age | hrs | 5460 | 833 | --- |
| Oil Changed | Client Info | Changed | Not Changd | --- |
| Sample Status | | ATTENTION | ABNORMAL | --- |

WEAR METALS

| method | limit/base | current | history1 | history2 | |
|----------|------------|-----------------|--------------|----------|-----|
| Iron | ppm | ASTM D5185m >50 | <1 | <1 | --- |
| Chromium | ppm | ASTM D5185m >10 | 0 | 0 | --- |
| Nickel | ppm | ASTM D5185m >3 | 1 | 0 | --- |
| Titanium | ppm | ASTM D5185m >3 | 0 | 0 | --- |
| Silver | ppm | ASTM D5185m >2 | 0 | 0 | --- |
| Aluminum | ppm | ASTM D5185m >10 | <1 | <1 | --- |
| Lead | ppm | ASTM D5185m >10 | <1 | 0 | --- |
| Copper | ppm | ASTM D5185m >50 | 9 | 1 | --- |
| Tin | ppm | ASTM D5185m >10 | <1 | <1 | --- |
| Vanadium | ppm | ASTM D5185m | 0 | 0 | --- |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | --- |

ADDITIVES

| method | limit/base | current | history1 | history2 | |
|------------|------------|-------------------|--------------|----------|-----|
| Boron | ppm | ASTM D5185m 0 | 0 | 0 | --- |
| Barium | ppm | ASTM D5185m 90 | 9 | 48 | --- |
| Molybdenum | ppm | ASTM D5185m 0 | 0 | 0 | --- |
| Manganese | ppm | ASTM D5185m | <1 | <1 | --- |
| Magnesium | ppm | ASTM D5185m 100 | 47 | 88 | --- |
| Calcium | ppm | ASTM D5185m 0 | 1 | 4 | --- |
| Phosphorus | ppm | ASTM D5185m 0 | 8 | 4 | --- |
| Zinc | ppm | ASTM D5185m 0 | 25 | 0 | --- |
| Sulfur | ppm | ASTM D5185m 23500 | 21000 | 17281 | --- |

CONTAMINANTS

| method | limit/base | current | history1 | history2 | |
|-----------|------------|------------------|--------------|----------|-----|
| Silicon | ppm | ASTM D5185m >25 | 2 | 1 | --- |
| Sodium | ppm | ASTM D5185m | 19 | 14 | --- |
| Potassium | ppm | ASTM D5185m >20 | 8 | 6 | --- |
| Water | % | ASTM D6304 >0.05 | 0.019 | 0.026 | --- |
| ppm Water | ppm | ASTM D6304 >500 | 195.2 | 269.6 | --- |

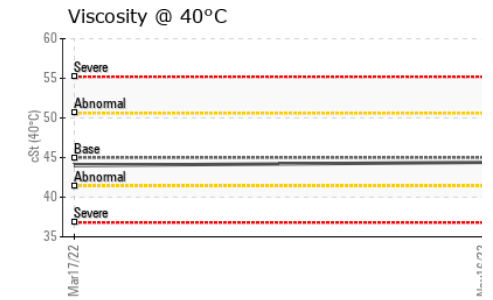
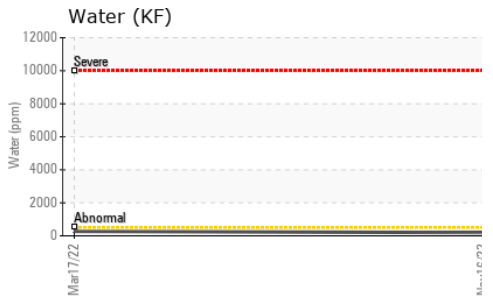
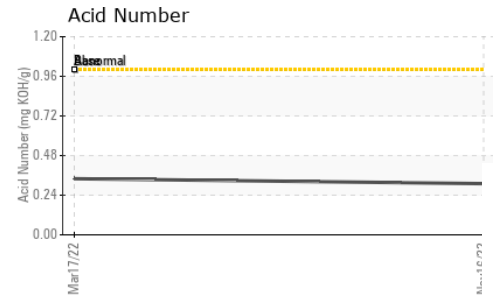
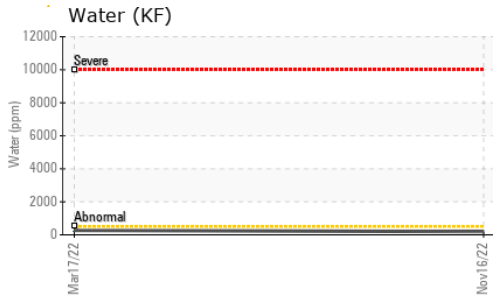
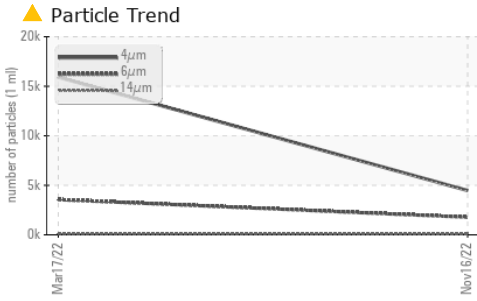
FLUID CLEANLINESS

| method | limit/base | current | history1 | history2 |
|-----------------|------------------------|-------------------|----------|----------|
| Particles >4µm | ASTM D7647 | 4473 | 15921 | --- |
| Particles >6µm | ASTM D7647 >1300 | ▲ 1773 | ▲ 3556 | --- |
| Particles >14µm | ASTM D7647 >80 | 68 | ▲ 95 | --- |
| Particles >21µm | ASTM D7647 >20 | 11 | 18 | --- |
| Particles >38µm | ASTM D7647 >4 | 0 | 2 | --- |
| Particles >71µm | ASTM D7647 >3 | 0 | 0 | --- |
| Oil Cleanliness | ISO 4406 (c) >--/17/13 | ▲ 19/18/13 | ▲ 19/14 | --- |

FLUID DEGRADATION

| method | limit/base | current | history1 | history2 | |
|------------------|------------|----------------|-------------|----------|-----|
| Acid Number (AN) | mg KOH/g | ASTM D8045 1.0 | 0.31 | 0.34 | --- |

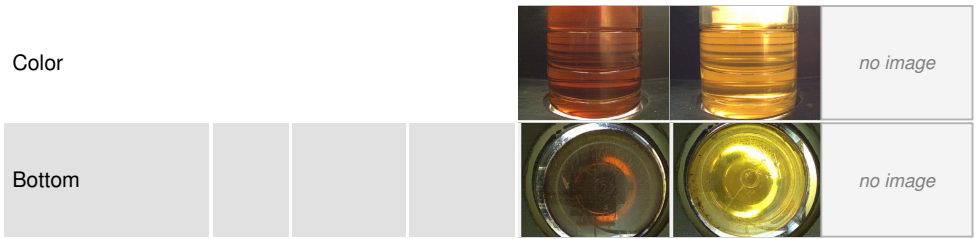
OIL ANALYSIS REPORT



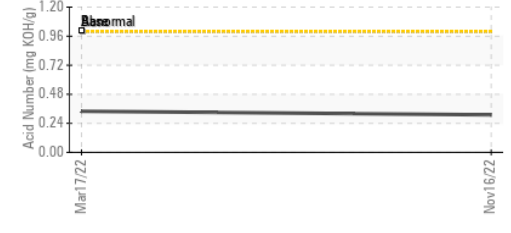
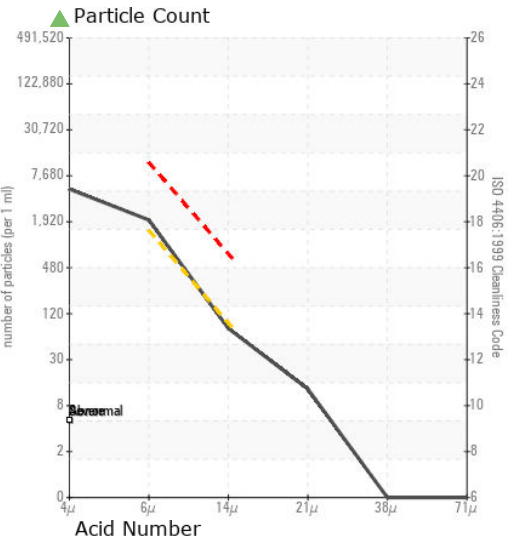
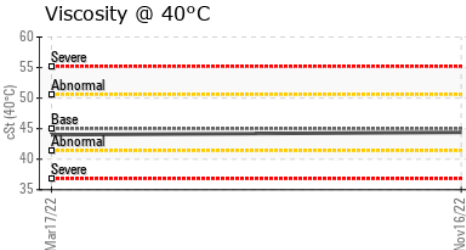
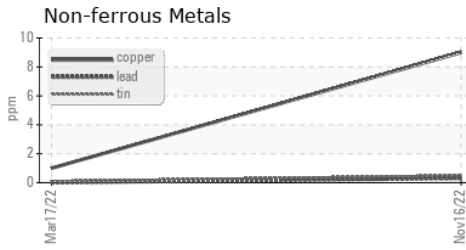
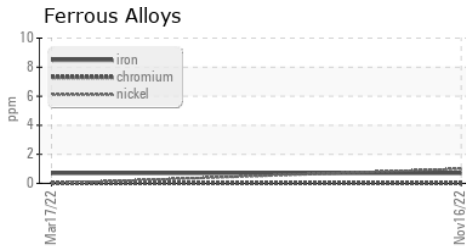
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- |
| Silt | scalar | *Visual | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | NONE | --- |
| 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 | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 45 | 44.0 | --- |

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



GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP47060 **Received** : 28 Nov 2022
Lab Number : 05704349 **Tested** : 29 Nov 2022
Unique Number : 10233923 **Diagnosed** : 29 Nov 2022 - Doug Bogart
Test Package : IND 2 (Additional Tests: KF, PrtCount)

AMAZON
 2255 W PARK PLACE BLVD
 STONE MOUNTAIN, GA
 US 30087
 Contact: BOB KIPP
 kippbobb@amazon.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: