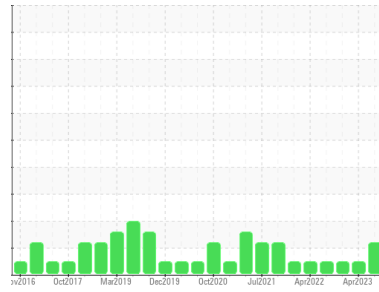




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
KAESER CSD 100 5491207 (S/N 1121)
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) S-460 (--- GAL)

DIAGNOSIS

Recommendation

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 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 | | KC123266 | KC94589 | KC97017 |
| Sample Date | Client Info | | 25 Jan 2024 | 24 Apr 2023 | 14 Dec 2022 |
| Machine Age | hrs | Client Info | 23028 | 22061 | 21695 |
| Oil Age | hrs | Client Info | 0 | 803 | 1187 |
| Oil Changed | Client Info | | N/A | Not Changd | Not Changd |
| Sample Status | | | ATTENTION | NORMAL | NORMAL |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >50 | 0 | 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 | <1 | 0 | <1 |
| Lead | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m >50 | 2 | 9 | 3 |
| Tin | ppm | ASTM D5185m >10 | <1 | 0 | 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 | 0 |
| Barium | ppm | ASTM D5185m 90 | 0 | 0 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | <1 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m 90 | 40 | 1 | 40 |
| Calcium | ppm | ASTM D5185m 2 | 1 | 0 | 0 |
| Phosphorus | ppm | ASTM D5185m | 3 | <1 | 4 |
| Zinc | ppm | ASTM D5185m | 31 | 2 | 49 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >25 | <1 | 0 | 0 |
| Sodium | ppm | ASTM D5185m | 19 | <1 | 16 |
| Potassium | ppm | ASTM D5185m >20 | 8 | <1 | 8 |
| Water | % | ASTM D6304 >0.05 | 0.025 | 0.006 | 0.027 |
| ppm Water | ppm | ASTM D6304 >500 | 257 | 68.9 | 274.1 |

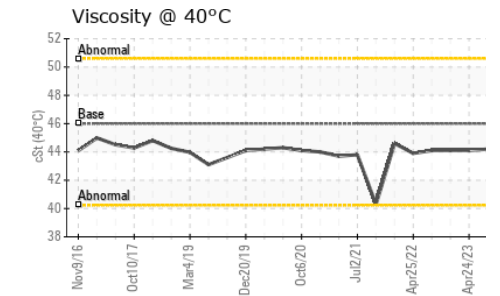
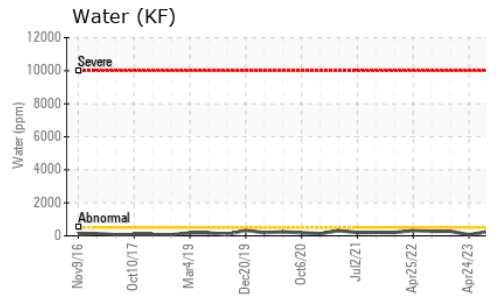
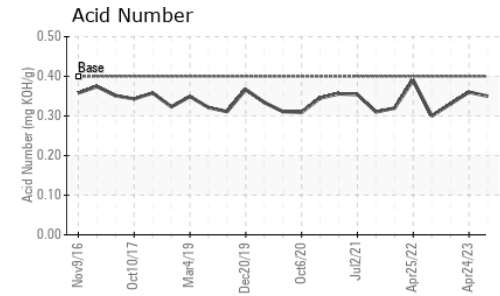
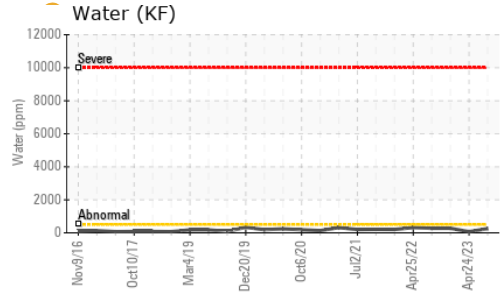
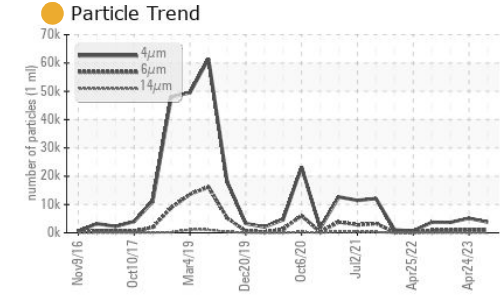
FLUID CLEANLINESS

| | method | limit/base | current | history1 | history2 |
|-----------------|------------------|------------|-----------------|----------|----------|
| Particles >4µm | ASTM D7647 | | 3784 | 5151 | 3690 |
| Particles >6µm | ASTM D7647 >1300 | | 1102 | 1195 | 920 |
| Particles >14µm | ASTM D7647 >80 | | 84 | 47 | 75 |
| Particles >21µm | ASTM D7647 >20 | | 22 | 9 | 24 |
| Particles >38µm | ASTM D7647 >4 | | 0 | 0 | 1 |
| Particles >71µm | ASTM D7647 >3 | | 0 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13 | 19/17/14 | 20/17/13 | 19/17/13 |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.4 | 0.35 | 0.36 | 0.33 |

OIL ANALYSIS REPORT



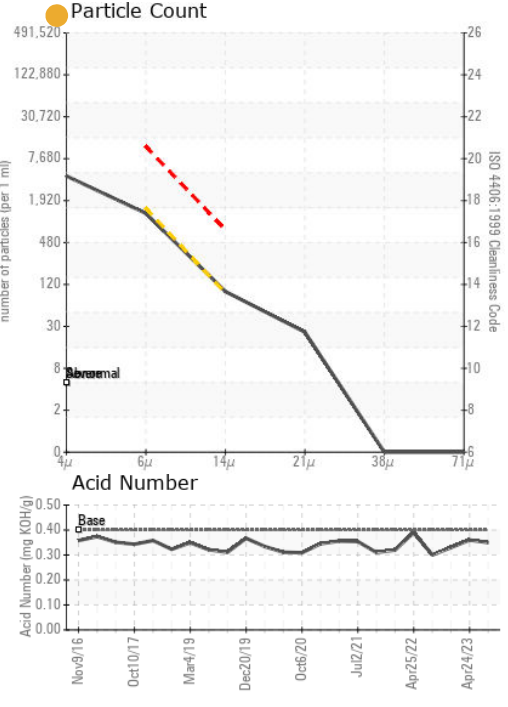
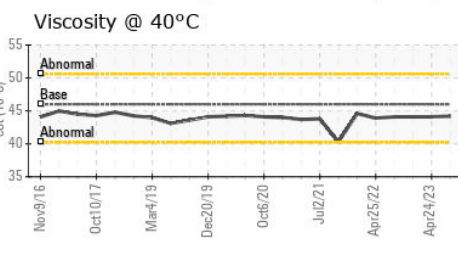
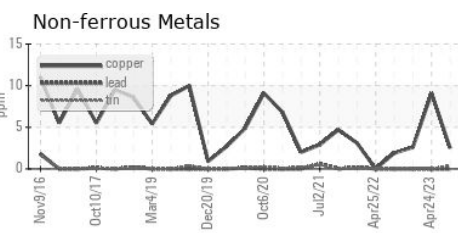
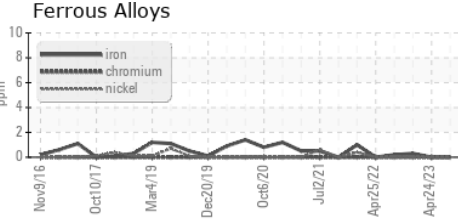
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | LIGHT | VLITE |
| 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 | 44.2 | 44.1 | 44.1 |

SAMPLE IMAGES

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

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KC123266
Lab Number : 06152619
Unique Number : 10982697
Test Package : IND 2

Received : 17 Apr 2024
Tested : 22 Apr 2024
Diagnosed : 22 Apr 2024 - Don Baldrige

KRAMSKI NORTH AMERICA INC
 8222 118TH AVE NORTH, SUITE 650
 LARGO, FL
 US 33773
 Contact:

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)