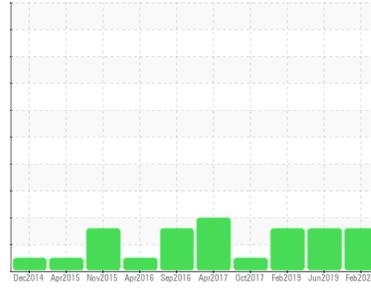


OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
KAESER BSD50 5006287 (S/N 1169)

Component
Compressor

Fluid
KAESER SIGMA (OEM) S-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 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 | history1 | history2 |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | | KCP47409D | KC72086 | KC77644 |
| Sample Date | Client Info | | 13 Feb 2024 | 14 Jun 2019 | 01 Feb 2019 |
| Machine Age | hrs | Client Info | 16719 | 33444 | 30806 |
| Oil Age | hrs | Client Info | 0 | 2638 | 30806 |
| Oil Changed | Client Info | | Changed | Not Changd | Changed |
| Sample Status | | | ABNORMAL | ABNORMAL | ATTENTION |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >50 | 0 | 1 | 6 |
| Chromium | ppm | ASTM D5185m >10 | <1 | 0 | 0 |
| Nickel | ppm | ASTM D5185m >3 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m >3 | 0 | 0 | <1 |
| Silver | ppm | ASTM D5185m >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >10 | 0 | <1 | 3 |
| Lead | ppm | ASTM D5185m >10 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m >50 | 1 | 7 | 6 |
| Tin | ppm | ASTM D5185m >10 | 0 | <1 | 0 |
| Antimony | ppm | ASTM D5185m | --- | <1 | 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 | <1 | <1 |
| Barium | ppm | ASTM D5185m 90 | <1 | 12 | <1 |
| Molybdenum | ppm | ASTM D5185m | 0 | <1 | 0 |
| Manganese | ppm | ASTM D5185m | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m 90 | 10 | 28 | 5 |
| Calcium | ppm | ASTM D5185m 2 | 1 | 8 | 284 |
| Phosphorus | ppm | ASTM D5185m | <1 | 8 | 76 |
| Zinc | ppm | ASTM D5185m | 0 | 5 | <1 |
| Sulfur | ppm | ASTM D5185m | 16207 | 14072 | 10844 |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >25 | 0 | 0 | 12 |
| Sodium | ppm | ASTM D5185m | 0 | 4 | 8 |
| Potassium | ppm | ASTM D5185m >20 | 0 | <1 | 9 |
| Water | % | ASTM D6304 >0.05 | 0.007 | 0.032 | 0.014 |
| ppm Water | ppm | ASTM D6304 >500 | 70 | 320 | 140 |

FLUID CLEANLINESS

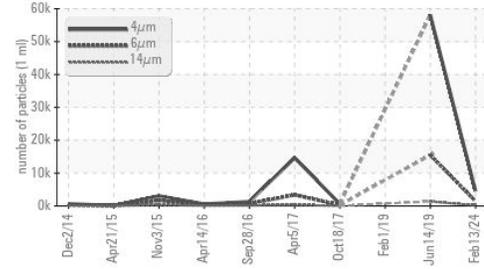
| | method | limit/base | current | history1 | history2 |
|-----------------|---------------------|------------|----------------|----------|----------|
| Particles >4µm | ASTM D7647 | | 4518 | 58073 | --- |
| Particles >6µm | ASTM D7647 >1300 | | ▲ 1431 | ▲ 15487 | --- |
| Particles >14µm | ASTM D7647 >80 | | ▲ 170 | ▲ 1375 | --- |
| Particles >21µm | ASTM D7647 >20 | | ▲ 46 | ▲ 379 | --- |
| Particles >38µm | ASTM D7647 >4 | | 2 | ▲ 9 | --- |
| Particles >71µm | ASTM D7647 >3 | | 0 | 0 | --- |
| Oil Cleanliness | ISO 4406 (c) >17/13 | | ▲ 18/15 | ▲ 21/18 | --- |

FLUID DEGRADATION

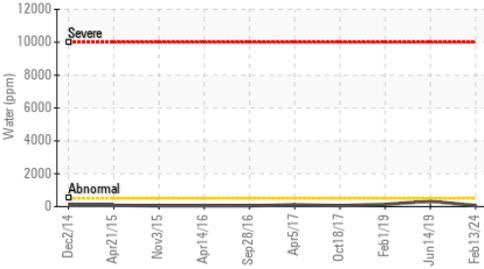
| | method | limit/base | current | history1 | history2 |
|------------------|----------|----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 0.4 | 0.38 | 0.340 | 0.222 |

OIL ANALYSIS REPORT

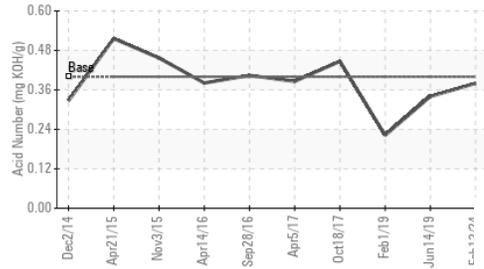
▲ Particle Trend



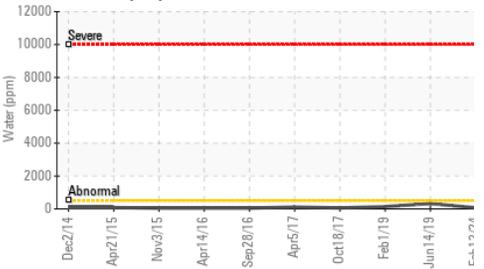
Water (KF)



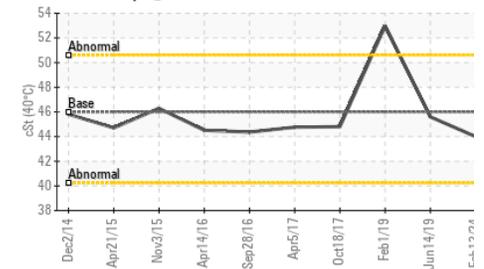
Acid Number



Water (KF)



Viscosity @ 40°C



| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | MODER |
| 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 |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 46 | 44.0 | 45.6 | 52.98 |

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

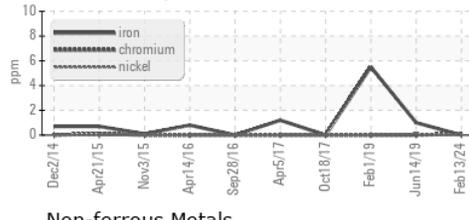
Color

Bottom

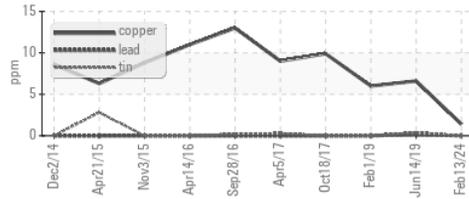


GRAPHS

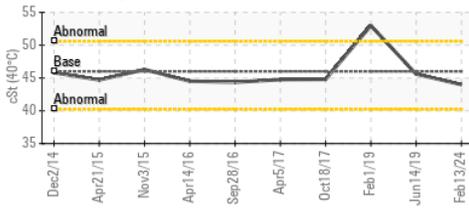
Ferrous Alloys



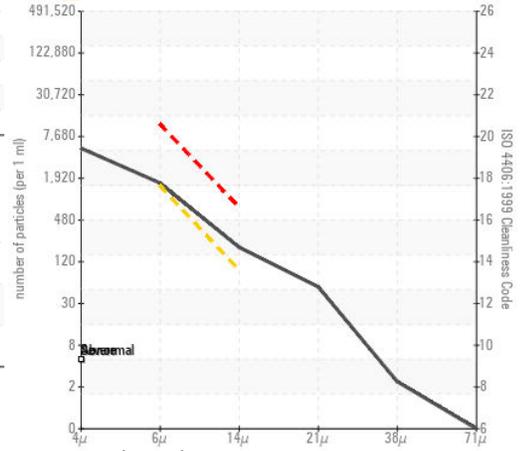
Non-ferrous Metals



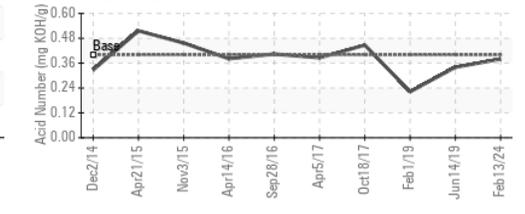
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP47409D
Lab Number : 06101632
Unique Number : 10899862
Test Package : IND 2 (Additional Tests: KF, PrtCount)

Received : 27 Feb 2024
Tested : 28 Feb 2024
Diagnosed : 29 Feb 2024 - Don Baldrige

QUIK RETE
 11145 TUXFORD ST
 SUN VALLEY, CA
 US 91352-2632
 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: