



OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
7418302 (S/N 1017)
 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 moderate amount of particulates present in the oil.

Fluid Condition

The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

| SAMPLE INFORMATION | | method | limit/base | current | history1 | history2 |
|--------------------|-------------|-------------|------------|--------------------|----------|----------|
| Sample Number | Client Info | | | KCPA018388 | --- | --- |
| Sample Date | Client Info | | | 13 Jun 2024 | --- | --- |
| Machine Age | hrs | Client Info | | 23069 | --- | --- |
| Oil Age | hrs | Client Info | | 3000 | --- | --- |
| Oil Changed | Client Info | | | Changed | --- | --- |
| Sample Status | | | | ATTENTION | --- | --- |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|-----------|----------|----------|
| Iron | ppm | ASTM D5185m | >50 | 0 | --- | --- |
| Chromium | ppm | ASTM D5185m | >10 | 0 | --- | --- |
| Nickel | ppm | ASTM D5185m | >3 | 0 | --- | --- |
| Titanium | ppm | ASTM D5185m | >3 | 0 | --- | --- |
| Silver | ppm | ASTM D5185m | >2 | 0 | --- | --- |
| Aluminum | ppm | ASTM D5185m | >10 | 0 | --- | --- |
| Lead | ppm | ASTM D5185m | >10 | 0 | --- | --- |
| Copper | ppm | ASTM D5185m | >50 | 14 | --- | --- |
| Tin | ppm | ASTM D5185m | >10 | 0 | --- | --- |
| Vanadium | ppm | ASTM D5185m | | 0 | --- | --- |
| Cadmium | ppm | ASTM D5185m | | 0 | --- | --- |

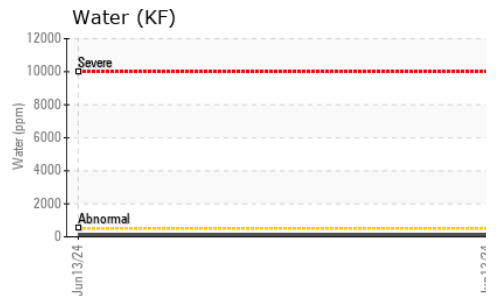
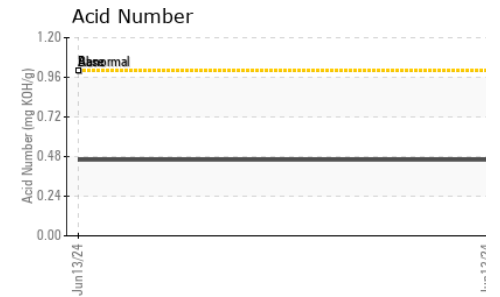
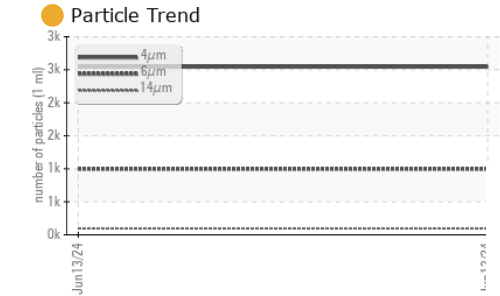
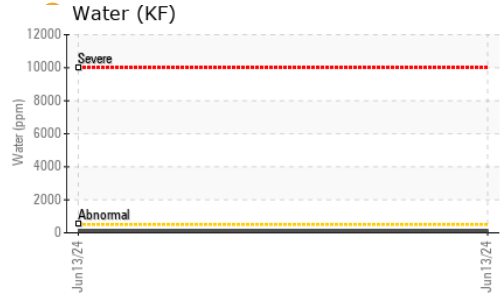
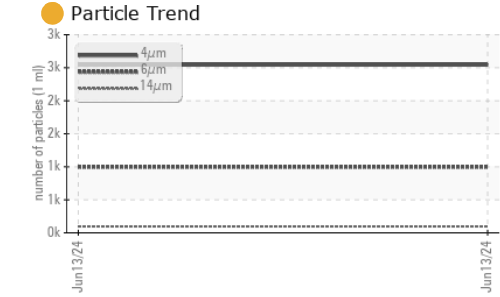
| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 0 | 0 | --- | --- |
| Barium | ppm | ASTM D5185m | 90 | 1 | --- | --- |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | --- | --- |
| Manganese | ppm | ASTM D5185m | | 0 | --- | --- |
| Magnesium | ppm | ASTM D5185m | 100 | 8 | --- | --- |
| Calcium | ppm | ASTM D5185m | 0 | 0 | --- | --- |
| Phosphorus | ppm | ASTM D5185m | 0 | 0 | --- | --- |
| Zinc | ppm | ASTM D5185m | 0 | <1 | --- | --- |
| Sulfur | ppm | ASTM D5185m | 23500 | 22028 | --- | --- |

| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >25 | 0 | --- | --- |
| Sodium | ppm | ASTM D5185m | | 6 | --- | --- |
| Potassium | ppm | ASTM D5185m | >20 | <1 | --- | --- |
| Water | % | ASTM D6304 | >0.05 | 0.011 | --- | --- |
| ppm Water | ppm | ASTM D6304 | >500 | 116 | --- | --- |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|-----------------|----------|----------|
| Particles >4µm | | ASTM D7647 | | 2542 | --- | --- |
| Particles >6µm | | ASTM D7647 | >1300 | 997 | --- | --- |
| Particles >14µm | | ASTM D7647 | >80 | 97 | --- | --- |
| Particles >21µm | | ASTM D7647 | >20 | 16 | --- | --- |
| Particles >38µm | | ASTM D7647 | >4 | 0 | --- | --- |
| Particles >71µm | | ASTM D7647 | >3 | 0 | --- | --- |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | 19/17/14 | --- | --- |

| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.0 | 0.46 | --- | --- |

OIL ANALYSIS REPORT



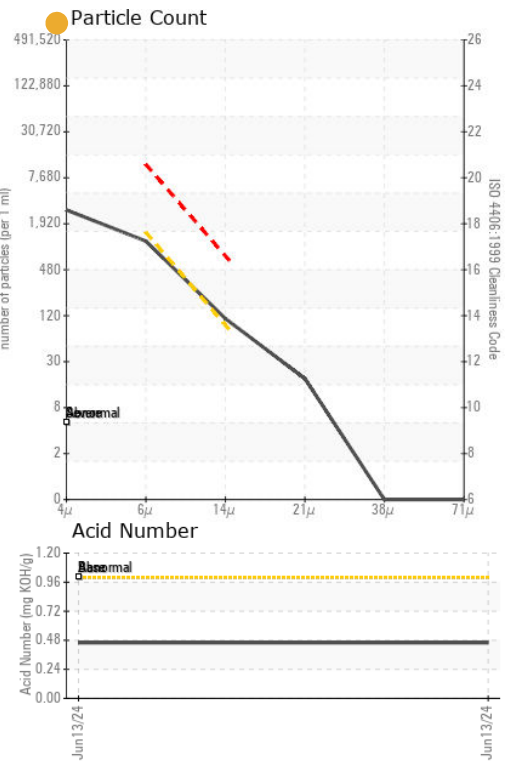
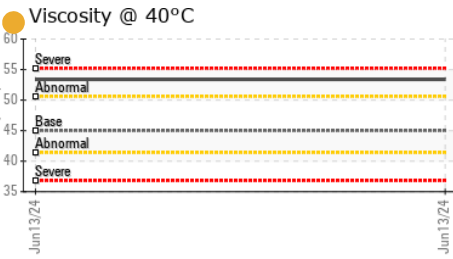
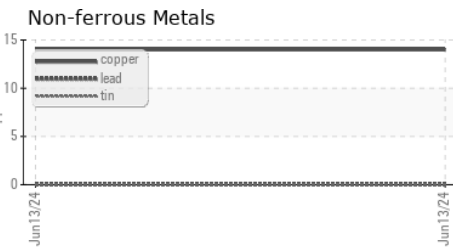
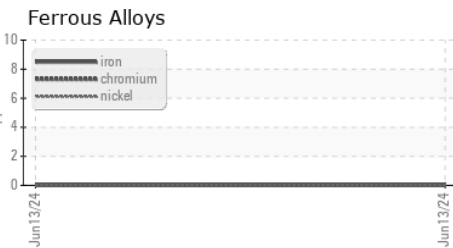
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- |
| Silt | scalar | *Visual | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | LIGHT | --- |
| 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 | 53.4 | --- |

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

| | | | |
|--------|--|----------|----------|
| Color | | no image | no image |
| Bottom | | no image | no image |

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA018388
Lab Number : 06219692
Unique Number : 11097889
Test Package : IND 2 (Additional Tests: KF, PrtCount)
Received : 25 Jun 2024
Tested : 26 Jun 2024
Diagnosed : 26 Jun 2024 - Don Baldrige

CHEP
 2053 MIGUEL BUSTAMANTE PKWY
 COLTON, CA
 US 92324
 Contact: JASON PINEDA
 jason.pineda@chep.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)