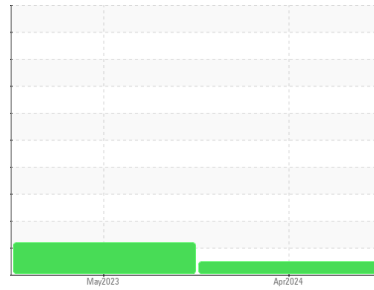




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
KAESER 4946507
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation
 Resample at the next service interval to monitor.

Wear
 All component wear rates are normal.

Contamination
 The amount and size of particulates present in the system are acceptable. There is no indication of any contamination 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 | | KCPA016337 | KCP52395 | --- |
| Sample Date | Client Info | | 01 Apr 2024 | 10 May 2023 | --- |
| Machine Age | hrs | Client Info | 78637 | 71267 | --- |
| Oil Age | hrs | Client Info | 7400 | 0 | --- |
| Oil Changed | Client Info | | Changed | Changed | --- |
| Sample Status | | | NORMAL | ATTENTION | --- |

WEAR METALS

| | method | limit/base | current | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >50 | 0 | 0 | --- |
| Chromium | ppm | ASTM D5185m >10 | <1 | <1 | --- |
| Nickel | ppm | ASTM D5185m >3 | <1 | <1 | --- |
| Titanium | ppm | ASTM D5185m >3 | <1 | <1 | --- |
| Silver | ppm | ASTM D5185m >2 | <1 | 0 | --- |
| Aluminum | ppm | ASTM D5185m >10 | 2 | <1 | --- |
| Lead | ppm | ASTM D5185m >10 | 0 | 0 | --- |
| Copper | ppm | ASTM D5185m >50 | 47 | 14 | --- |
| Tin | ppm | ASTM D5185m >10 | <1 | <1 | --- |
| Vanadium | ppm | ASTM D5185m | <1 | 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 | <1 | 0 | --- |
| Molybdenum | ppm | ASTM D5185m 0 | 0 | <1 | --- |
| Manganese | ppm | ASTM D5185m | 0 | <1 | --- |
| Magnesium | ppm | ASTM D5185m 100 | 1 | 9 | --- |
| Calcium | ppm | ASTM D5185m 0 | 3 | 0 | --- |
| Phosphorus | ppm | ASTM D5185m 0 | 3 | 6 | --- |
| Zinc | ppm | ASTM D5185m 0 | 3 | 4 | --- |
| Sulfur | ppm | ASTM D5185m 23500 | 22742 | 17292 | --- |

CONTAMINANTS

| | method | limit/base | current | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m >25 | 0 | 1 | --- |
| Sodium | ppm | ASTM D5185m | 0 | 2 | --- |
| Potassium | ppm | ASTM D5185m >20 | 1 | <1 | --- |
| Water | % | ASTM D6304 >0.05 | 0.007 | 0.005 | --- |
| ppm Water | ppm | ASTM D6304 >500 | 71 | 55.3 | --- |

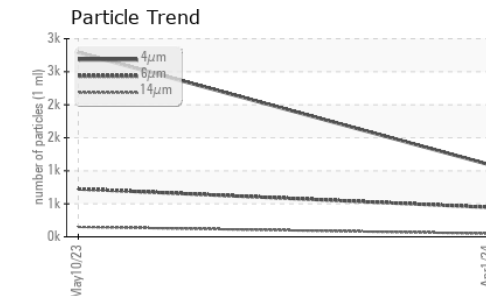
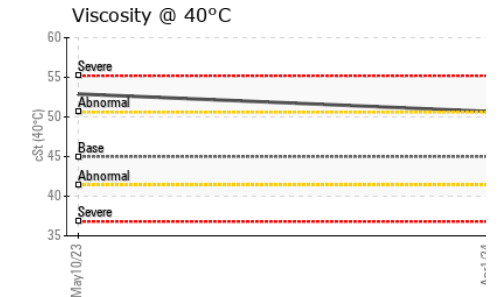
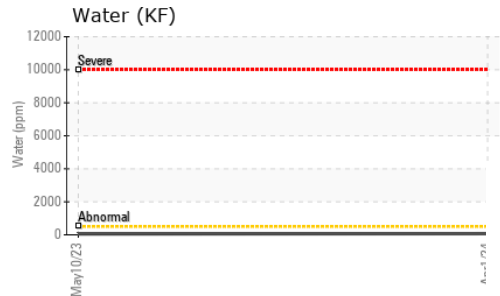
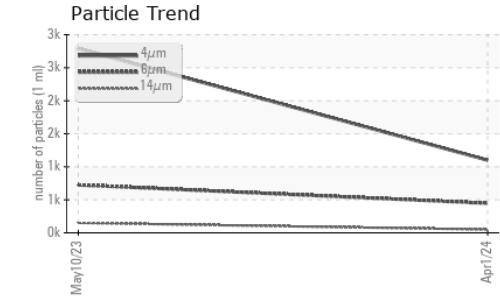
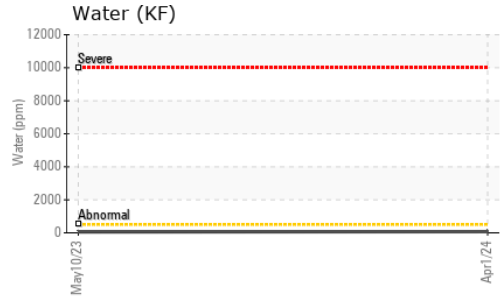
FLUID CLEANLINESS

| | method | limit/base | current | history1 | history2 |
|-----------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm | ASTM D7647 | | 1100 | 2790 | --- |
| Particles >6µm | ASTM D7647 | >1300 | 447 | 725 | --- |
| Particles >14µm | ASTM D7647 | >80 | 49 | 150 | --- |
| Particles >21µm | ASTM D7647 | >20 | 10 | 53 | --- |
| Particles >38µm | ASTM D7647 | >4 | 0 | 4 | --- |
| Particles >71µm | ASTM D7647 | >3 | 0 | 0 | --- |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13 | 17/16/13 | 19/17/14 | --- |

FLUID DEGRADATION

| | method | limit/base | current | history1 | history2 |
|------------------|----------|----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 1.0 | 0.41 | 0.54 | --- |

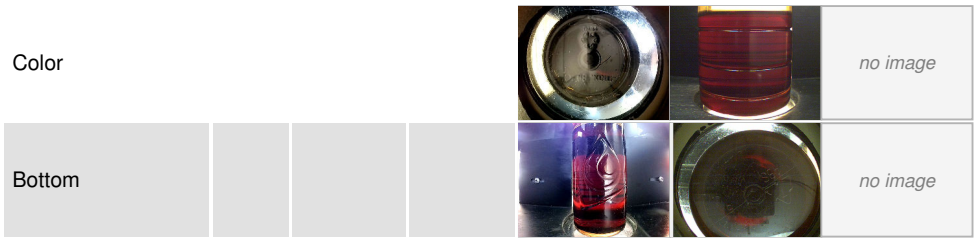
OIL ANALYSIS REPORT



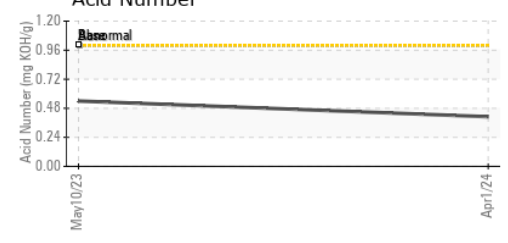
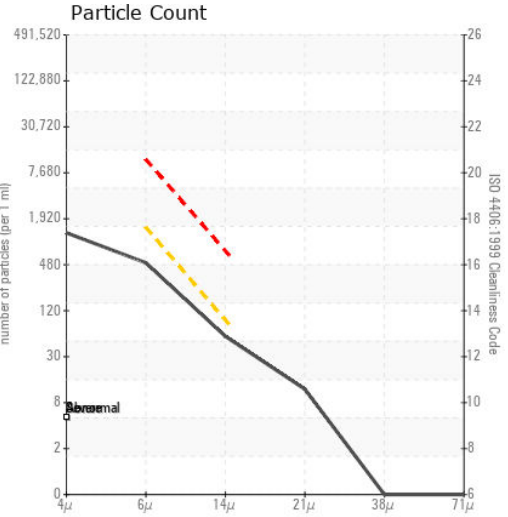
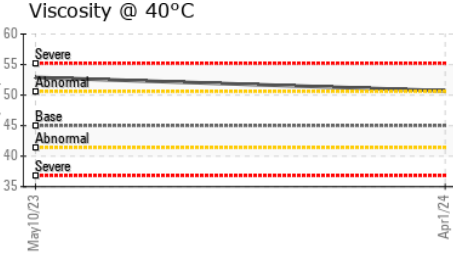
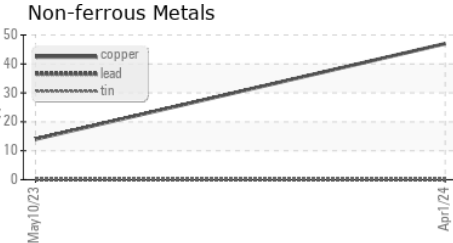
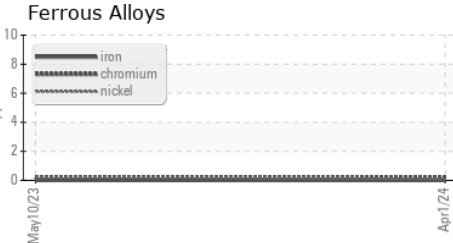
| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | NONE | --- |
| Precipitate | scalar | *Visual | NONE | NONE | --- |
| Silt | scalar | *Visual | NONE | NONE | --- |
| Debris | scalar | *Visual | NONE | NONE | 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 | 50.7 | 52.9 |

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA016337
Lab Number : 06142269
Unique Number : 10967077
Test Package : IND 2 (Additional Tests: KF, PrtCount)
Received : 08 Apr 2024
Tested : 11 Apr 2024
Diagnosed : 11 Apr 2024 - Don Baldrige

LYON COUNTY UTILITES DEPARTMENT
 34 LAKES BLVD STE 103
 DAYTON, NV
 US 89403
 Contact: K. FURR
 kfurr@lyon-county.org

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)