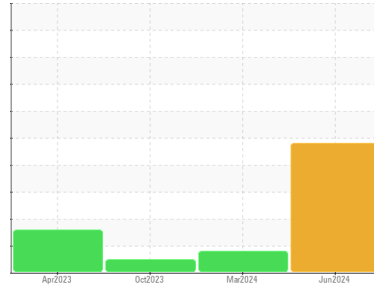




OIL ANALYSIS REPORT

Sample Rating Trend



WATER



Machine Id
7205014 (S/N 1014)
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) FG-460 (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition.

Wear

The aluminum level is abnormal. All other component wear rates are normal.

Contamination

Appearance is hazy. There is a high amount of particulates present in the oil. There is a light concentration of water 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 | | KCPA019173 | KCPA011996 | KCPA003619 |
| Sample Date | Client Info | | 12 Jun 2024 | 06 Mar 2024 | 24 Oct 2023 |
| Machine Age | hrs | Client Info | 31626 | 29431 | 26362 |
| Oil Age | hrs | Client Info | 0 | 0 | 0 |
| Oil Changed | Client Info | | Changed | N/A | N/A |
| Sample Status | | | ABNORMAL | ATTENTION | NORMAL |

| WEAR METALS | method | limit/base | current | history1 | history2 |
|-------------|--------|-----------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m >50 | 1 | <1 | 0 |
| Chromium | ppm | ASTM D5185m >10 | 0 | 0 | <1 |
| Nickel | ppm | ASTM D5185m >3 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m >3 | <1 | 0 | <1 |
| Silver | ppm | ASTM D5185m >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >10 | ▲ 11 | 8 | 3 |
| Lead | ppm | ASTM D5185m >10 | 0 | 0 | 0 |
| Copper | ppm | ASTM D5185m >50 | <1 | <1 | 3 |
| Tin | ppm | ASTM D5185m >10 | 0 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | <1 |

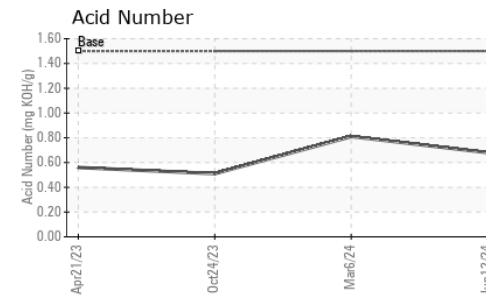
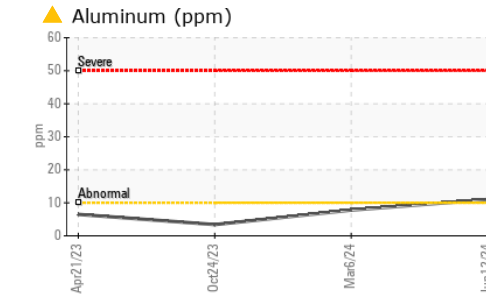
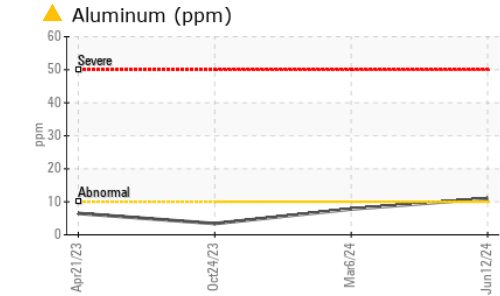
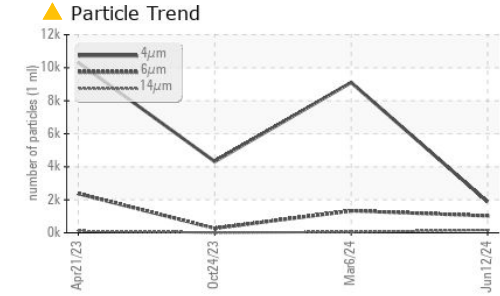
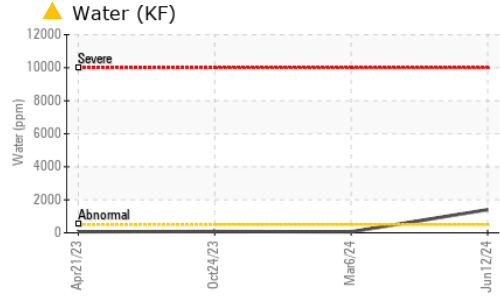
| ADDITIVES | method | limit/base | current | history1 | history2 |
|------------|--------|-----------------|--------------|----------|----------|
| Boron | ppm | ASTM D5185m | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 6 | 1 | 0 |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | <1 |
| Manganese | ppm | ASTM D5185m | <1 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | 2 | 0 | 0 |
| Calcium | ppm | ASTM D5185m | 0 | <1 | <1 |
| Phosphorus | ppm | ASTM D5185m 500 | 289 | 333 | 148 |
| Zinc | ppm | ASTM D5185m | 269 | 284 | 162 |
| Sulfur | ppm | ASTM D5185m | 1980 | 1977 | 1378 |

| CONTAMINANTS | method | limit/base | current | history1 | history2 |
|--------------|--------|------------------|----------------|----------|----------|
| Silicon | ppm | ASTM D5185m >25 | <1 | 0 | <1 |
| Sodium | ppm | ASTM D5185m | 7 | 4 | 3 |
| Potassium | ppm | ASTM D5185m >20 | 3 | <1 | 2 |
| Water | % | ASTM D6304 >0.05 | ▲ 0.140 | 0.006 | 0.008 |
| ppm Water | ppm | ASTM D6304 >500 | ▲ 1400 | 61 | 80 |

| FLUID CLEANLINESS | method | limit/base | current | history1 | history2 |
|-------------------|------------------|------------|-------------------|----------|----------|
| Particles >4µm | ASTM D7647 | | 1879 | 9104 | 4316 |
| Particles >6µm | ASTM D7647 >1300 | | 1024 | 1334 | 273 |
| Particles >14µm | ASTM D7647 >80 | | ▲ 174 | 47 | 13 |
| Particles >21µm | ASTM D7647 >20 | | ▲ 59 | 11 | 4 |
| Particles >38µm | ASTM D7647 >4 | | ▲ 9 | 0 | 0 |
| Particles >71µm | ASTM D7647 >3 | | 1 | 0 | 0 |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13 | ▲ 18/17/15 | 20/18/13 | 19/15/11 |

| FLUID DEGRADATION | method | limit/base | current | history1 | history2 |
|-------------------|----------|----------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 1.5 | 0.68 | 0.81 | 0.51 |

OIL ANALYSIS REPORT

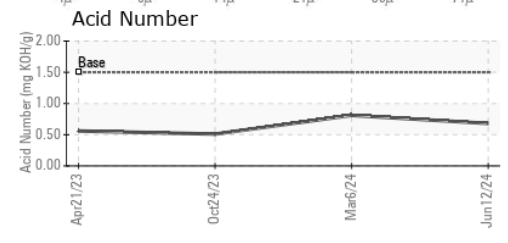
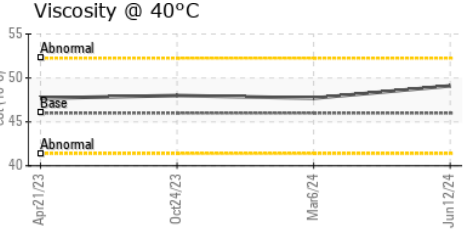
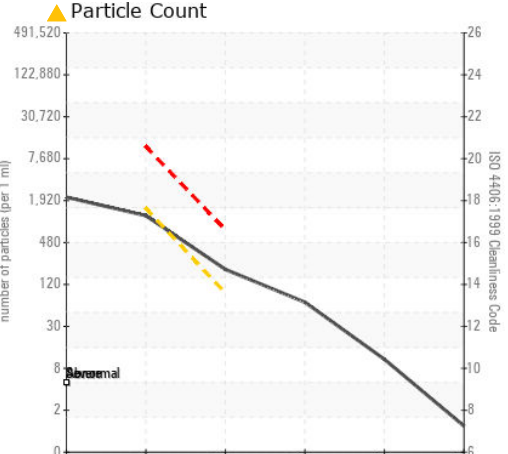
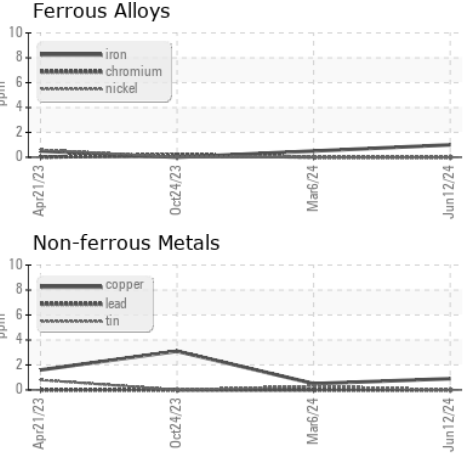


| VISUAL | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal | scalar | *Visual | NONE | NONE | NONE |
| Yellow Metal | scalar | *Visual | NONE | NONE | NONE |
| Precipitate | scalar | *Visual | NONE | NONE | NONE |
| Silt | scalar | *Visual | NONE | NONE | NONE |
| Debris | scalar | *Visual | NONE | NONE | LIGHT |
| Sand/Dirt | scalar | *Visual | NONE | NONE | NONE |
| Appearance | scalar | *Visual | NORML | HAZY | NORML |
| Odor | scalar | *Visual | NORML | NORML | NORML |
| Emulsified Water | scalar | *Visual | >0.05 | 0.2% | NEG |
| Free Water | scalar | *Visual | | NEG | NEG |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 | 46 | 49.1 | 47.7 |

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

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA019173
Lab Number : 06212401
Unique Number : 11085265
Test Package : IND 2 (Additional Tests: KF, PrtCount)
Received : 17 Jun 2024
Tested : 21 Jun 2024
Diagnosed : 21 Jun 2024 - Jonathan Hester

HEB MEAT PLANT
 4710 N PAN AM EXP
 SAN ANTONIO, TX
 US 78217
 Contact: SCOTT REUTER
 reuter.scott@heb.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)