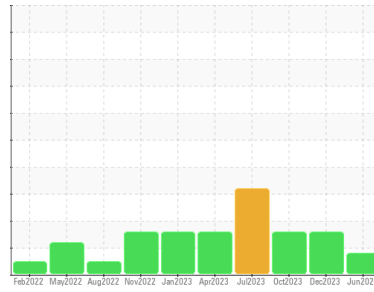




OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
8176150 (S/N 1032)
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) S-460 (--- GAL)

DIAGNOSIS

Recommendation
 No corrective action is recommended at this time. The 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 moderate amount of silt (particulates < 14 microns in size) 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 | | | KC126155 | KC06051494 | KC05979643 |
| Sample Date | Client Info | | | 05 Jun 2024 | 28 Dec 2023 | 15 Oct 2023 |
| Machine Age | hrs Client Info | | | 23197 | 19395 | 17515 |
| Oil Age | hrs Client Info | | | 0 | 0 | 0 |
| Oil Changed | Client Info | | | N/A | N/A | N/A |
| Sample Status | | | | ATTENTION | ABNORMAL | ABNORMAL |

| WEAR METALS | | method | limit/base | current | history1 | history2 |
|-------------|-----|-------------|------------|--------------|----------|----------|
| Iron | ppm | ASTM D5185m | >50 | 0 | <1 | 0 |
| Chromium | ppm | ASTM D5185m | >10 | <1 | <1 | 0 |
| Nickel | ppm | ASTM D5185m | >3 | 0 | <1 | 0 |
| Titanium | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | 2 | 1 | <1 |
| Lead | ppm | ASTM D5185m | >10 | 0 | <1 | 0 |
| Copper | ppm | ASTM D5185m | >50 | 5 | 8 | 13 |
| Tin | ppm | ASTM D5185m | >10 | <1 | <1 | 0 |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | <1 | 0 |

| ADDITIVES | | method | limit/base | current | history1 | history2 |
|------------|-----|-------------|------------|----------|----------|----------|
| Boron | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Barium | ppm | ASTM D5185m | 90 | 0 | 1 | 0 |
| Molybdenum | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Magnesium | ppm | ASTM D5185m | 90 | 2 | <1 | 0 |
| Calcium | ppm | ASTM D5185m | 2 | 0 | <1 | 0 |
| Phosphorus | ppm | ASTM D5185m | | 2 | 17 | 0 |
| Zinc | ppm | ASTM D5185m | | 1 | 0 | 0 |

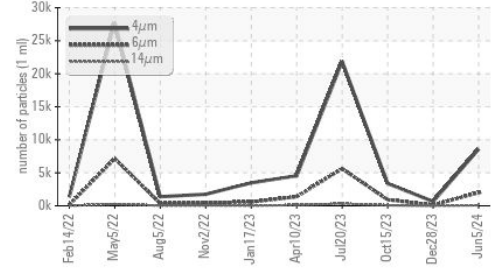
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
|--------------|-----|-------------|------------|--------------|----------|----------|
| Silicon | ppm | ASTM D5185m | >25 | 20 | ▲ 44 | ▲ 37 |
| Sodium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | <1 | 0 |
| Water | % | ASTM D6304 | >0.05 | 0.004 | 0.004 | 0.008 |
| ppm Water | ppm | ASTM D6304 | >500 | 43 | 47 | 83.8 |

| FLUID CLEANLINESS | | method | limit/base | current | history1 | history2 |
|-------------------|--|--------------|------------|----------------|----------|----------|
| Particles >4µm | | ASTM D7647 | | 8573 | 650 | 3382 |
| Particles >6µm | | ASTM D7647 | >1300 | ● 2006 | 112 | 919 |
| Particles >14µm | | ASTM D7647 | >80 | 70 | 3 | 75 |
| Particles >21µm | | ASTM D7647 | >20 | 13 | 0 | 20 |
| Particles >38µm | | ASTM D7647 | >4 | 1 | 0 | 1 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >17/13 | ● 18/13 | 14/9 | 17/13 |

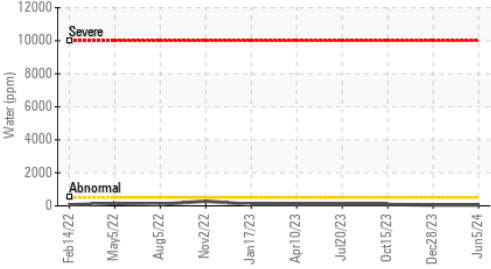
| FLUID DEGRADATION | | method | limit/base | current | history1 | history2 |
|-------------------|----------|------------|------------|-------------|----------|----------|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.4 | 0.47 | 0.44 | 0.38 |

OIL ANALYSIS REPORT

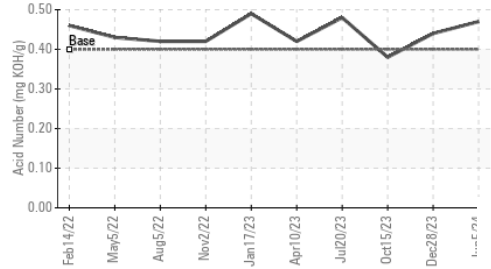
Particle Trend



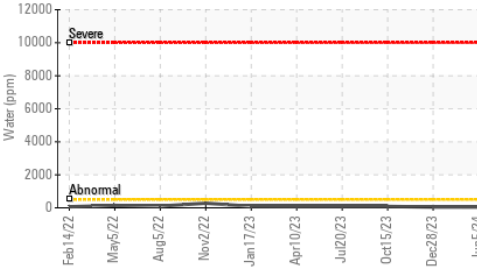
Water (KF)



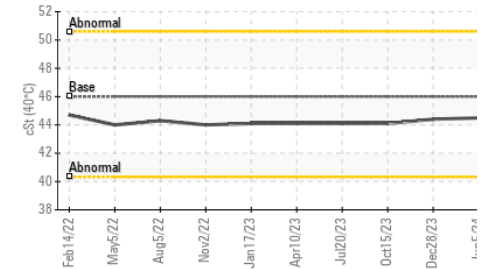
Acid Number



Water (KF)



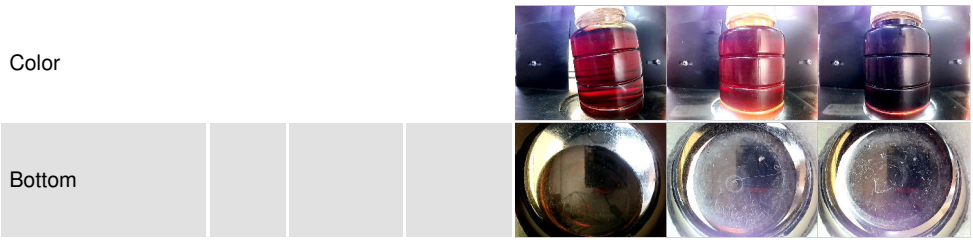
Viscosity @ 40°C



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

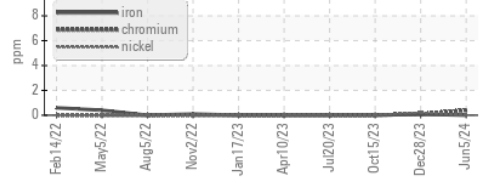
| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|--------------|---------|----------|----------|
| Visc @ 40°C | cSt | ASTM D445 46 | 44.5 | 44.4 | 44.1 |

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

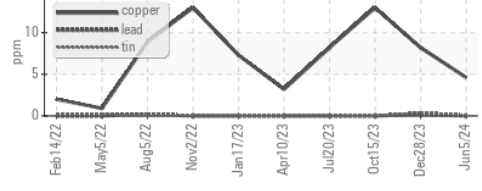


GRAPHS

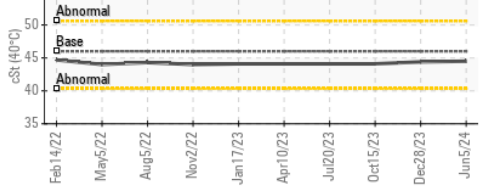
Ferrous Alloys



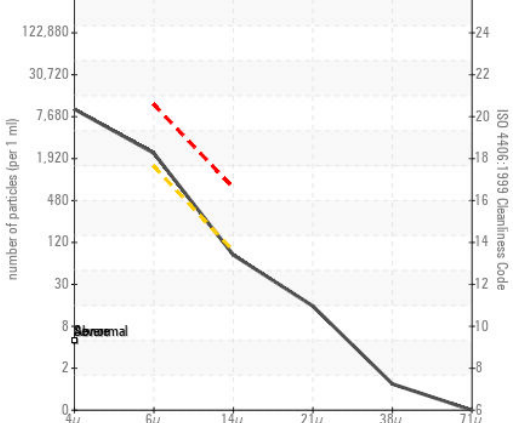
Non-ferrous Metals



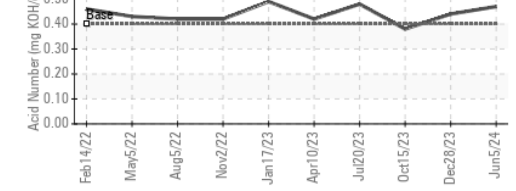
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KC126155
Lab Number : 06202704
Unique Number : 11070165
Test Package : IND 2
Received : 07 Jun 2024
Tested : 10 Jun 2024
Diagnosed : 10 Jun 2024 - Don Baldrige

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 PIERCETON, IN
 US 46562

Contact: CHRIS SHOUE
 christopher.shoue@aludyne.com
 T: (574)594-9681
 F:
 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)