

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

4694460 (S/N 1453) 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 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.

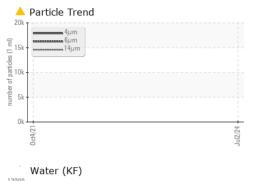
| SAMPLE INFORM | IATION | method | limit/base | current | history1 | history2 |
|------------------|----------|--------------|------------|-------------------|-------------|----------|
| Sample Number | | Client Info | | KCPA017588 | KCP36378 | |
| Sample Date | | Client Info | | 02 Jul 2024 | 04 Oct 2021 | |
| Machine Age | hrs | Client Info | | 39550 | 34590 | |
| Oil Age | hrs | Client Info | | 0 | 4882 | |
| Oil Changed | | Client Info | | Changed | Changed | |
| Sample Status | | | | ABNORMAL | ABNORMAL | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >50 | 0 | 1 | |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | |
| Nickel | ppm | ASTM D5185m | >3 | 0 | 0 | |
| Titanium | ppm | ASTM D5185m | >3 | 0 | 0 | |
| Silver | ppm | ASTM D5185m | >2 | 0 | <1 | |
| Aluminum | ppm | ASTM D5185m | | 0 | <1 | |
| Lead | ppm | ASTM D5185m | >10 | 0 | 0 | |
| Copper | ppm | ASTM D5185m | | 7 | 27 | |
| Tin | ppm | ASTM D5185m | >10 | 0 | <1 | |
| Antimony | ppm | ASTM D5185m | >10 | | 0 | |
| Vanadium | | ASTM D5185m | | 0 | 0 | |
| | ppm | | | 0 | 0 | |
| Cadmium | ppm | ASTM D5185m | | U | 0 | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | 0 | 0 | 15 | |
| Barium | ppm | ASTM D5185m | 90 | 0 | 0 | |
| Molybdenum | ppm | ASTM D5185m | 0 | 0 | 0 | |
| Manganese | ppm | ASTM D5185m | | 0 | 0 | |
| Magnesium | ppm | ASTM D5185m | 100 | 0 | 0 | |
| Calcium | ppm | ASTM D5185m | 0 | 0 | 0 | |
| Phosphorus | ppm | ASTM D5185m | 0 | <1 | <1 | |
| Zinc | ppm | ASTM D5185m | 0 | 15 | 0 | |
| Sulfur | ppm | ASTM D5185m | 23500 | 20693 | 15938 | |
| CONTAMINANTS | I- I- | method | limit/base | current | history1 | history2 |
| | | | | | | |
| Silicon | ppm | ASTM D5185m | >25 | <1 | 0 | |
| Sodium | ppm | ASTM D5185m | | 2 | <1 | |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 0 | |
| Water | % | ASTM D6304 | | 0.008 | 0.007 | |
| ppm Water | ppm | ASTM D6304 | >500 | 90 | 76.7 | |
| FLUID CLEANLIN | ESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | | 17363 | | |
| Particles >6µm | | ASTM D7647 | >1300 | <u> </u> | | |
| Particles >14µm | | ASTM D7647 | >80 | A 306 | | |
| Particles >21µm | | ASTM D7647 | >20 | <u> </u> | | |
| Particles >38µm | | ASTM D7647 | >4 | 3 | | |
| Particles >71µm | | ASTM D7647 | >3 | 1 | | |
| Oil Cleanliness | | ISO 4406 (c) | >/17/13 | 1 21/19/15 | | |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.0 | 0.41 | 0.341 | |

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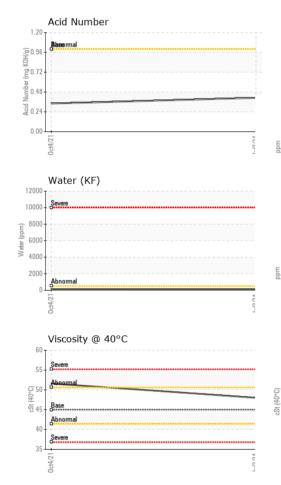
Contact/Location: ADAM SHUPE - INTFRE Page 1 of 2



OIL ANALYSIS REPORT







| VISUAL | | method | limit/base | current | history1 | history2 |
|------------------------------|-------------|--|---|----------------------|----------|----------|
| /hite Metal | scalar | *Visual | NONE | NONE | NONE | |
| ellow Metal | scalar | *Visual | NONE | NONE | NONE | |
| recipitate | scalar | *Visual | NONE | NONE | NONE | |
| ilt | scalar | *Visual | NONE | NONE | NONE | |
| ebris | scalar | *Visual | NONE | LIGHT | 🔺 MODER | |
| and/Dirt | scalar | *Visual | NONE | NONE | NONE | |
| opearance | scalar | *Visual | NORML | NORML | NORML | |
| dor | scalar | *Visual | NORML | NORML | NORML | |
| mulsified Water | scalar | *Visual | >0.05 | NEG | NEG | |
| ree Water | scalar | *Visual | | NEG | NEG | |
| FLUID PROPERT | IES | method | limit/base | current | history1 | history2 |
| isc @ 40°C | cSt | ASTM D445 | 45 | 48.0 | 51.6 | |
| SAMPLE IMAGES | 6 | method | limit/base | current | history1 | history2 |
| olor | | | | | | no image |
| ottom | | | | | | no image |
| GRAPHS | | | | | | |
| Ferrous Alloys | | | | Particle Cour | nt | 2 |
| iron | | | 491,52 | Ī | | T |
| nickel | | | 122,88 | D- | | -2 |
| | | | 30,72 | , , | | +2 |
| | | | | | | |
| 21 | | | 7,68 | | | -2 |
| 0ct4/21 | | | Jul2/24. per 1 ml) | | | -1 |
| Non forrous Motol | _ | | Jul2/24 164 of particles (per 1 ml) | | 1. | |
| Non-ferrous Metals | 5 | | of part | 1 | | |
| copper | | | jag 12 | - | 1 | +1 |
| tin | | | 3 | | | -1 |
| | | And in the owner of the owner of the owner o | | | | |
| | | | | Bibrevernal | | |
| 4/21 | *********** | ******** | Jul2/24 | 2 - | | |
| 0ct4/2 | | | Juli | | | |
| Viscosity @ 40°C | | | | 4μ 6μ Acid Number | 14µ 21µ | 38µ 71µ |
| | | | | | | |
| Severe | | | HOX 0.9 | Basermal | | |
| Severe Abnormal | | | <u>الم</u> 0.7 | 2 | | |
| Abnormal | | | - ě 0.4 | 3 | | |
| - | | | hun | | | |
| Abnormal Base | | | 2.0 Vnu Vcid Vnu | 1 | | |
| Abnormal Base Abnormal | | | (b)H 0.9 b)H 0.9 b)H 0.7 b)H 0.7 b)H 0.2 b)H 0.2 b)H 0.2 b)H 0.2 b)H 0.2 b)H 0.2 b)H 0.2 b)H 0.5 b)H 0 | 0ct4/21 | | |



| | à | Laboratory | : WearCheck USA - 50 | INTEMA | ATIX | | | |
|-----|--|------------------|--------------------------|-------------------|------------------------------|-----------------------|------|--|
| 贤 | ANAB | Sample No. | : KCPA017588 | Received | : 12 Jul 2024 | 46410 FREMONT B | LVD | |
| ۱ e | ACCREDITED | Lab Number | : 06234949 | Tested | : 15 Jul 2024 | FREMONT | , CA | |
| | TESTING LABORATORY | Unique Number | : 11123783 | Diagnosed | : 15 Jul 2024 - Don Baldridg | le US 94 | 4538 | |
| | Certificate L2367 | Test Package | : IND 2 (Additional Tes | sts: KF, PrtCount |) | Contact: ADAM SH | UPE | |
| | To discuss thi | s sample report, | , contact Customer Serv | ice at 1-800-237 | 1369. | adam.shupe@intematix. | .com | |
| - 1 | * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. | | | | | | | |
| -2 | CGM 106:2012) | F: | | | | | | |
| | | | | | | | | |

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