

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **7199313 (S/N 1160)** Component

Compressor Fluid

KAESER SIGMA (OEM) S-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.

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|------------------|---------------------------------|--------------|------------|-------------|-------------|-------------|
| SAMPLE INFORM | IATION | method | limit/base | current | history1 | history2 |
| Sample Number | | Client Info | | KC98847 | KC98827 | KC98831 |
| Sample Date | | Client Info | | 23 May 2023 | 09 Dec 2022 | 27 May 2022 |
| Machine Age | hrs | Client Info | | 28901 | 28984 | 20819 |
| Oil Age | hrs | Client Info | | 2000 | 8164 | 4582 |
| Oil Changed | | Client Info | | Changed | Changed | Changed |
| Sample Status | | | | NORMAL | ABNORMAL | ATTENTION |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >50 | 0 | 0 | <1 |
| Chromium | ppm | ASTM D5185m | >10 | 0 | 0 | 0 |
| Nickel | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Titanium | ppm | ASTM D5185m | >3 | 0 | 0 | 0 |
| Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m | >10 | 0 | 0 | <1 |
| Lead | ppm | ASTM D5185m | >10 | 0 | 0 | 2 |
| Copper | ppm | ASTM D5185m | >50 | 1 | 2 | 3 |
| Tin | ppm | ASTM D5185m | >10 | 0 | <1 | <1 |
| Antimony | ppm | ASTM D5185m | | | | |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | | 0 | 0 | <1 |
| Barium | ppm | ASTM D5185m | 90 | 18 | 7 | 22 |
| Molybdenum | ppm | ASTM D5185m | | 0 | 0 | 0 |
| Manganese | ppm | ASTM D5185m | | 0 | <1 | 0 |
| Magnesium | ppm | ASTM D5185m | 90 | 46 | 46 | 32 |
| Calcium | ppm | ASTM D5185m | 2 | 0 | 2 | <1 |
| Phosphorus | ppm | ASTM D5185m | | <1 | 1 | 11 |
| Zinc | ppm | ASTM D5185m | | 0 | 2 | 2 |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >25 | 0 | 0 | <1 |
| Sodium | ppm | ASTM D5185m | | 13 | 14 | 11 |
| Potassium | ppm | ASTM D5185m | >20 | <1 | 1 | 0 |
| Water | % | ASTM D6304 | >0.05 | 0.017 | 0.022 | 0.014 |
| ppm Water | ppm | ASTM D6304 | >500 | 177.0 | 222.2 | 142.4 |
| FLUID CLEANLIN | IESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | | 3628 | 8660 | 2046 |
| Particles >6µm | | ASTM D7647 | >1300 | 1092 | <u> </u> | 797 |
| Particles >14µm | | ASTM D7647 | | 73 | 77 | 1 03 |
| Particles >21µm | | ASTM D7647 | >20 | 17 | 18 | <u> </u> |
| Particles >38µm | | ASTM D7647 | >4 | 1 | 1 | 1 |
| Particles >71µm | | ASTM D7647 | >3 | 0 | 0 | 0 |
| Oil Cleanliness | | ISO 4406 (c) | >/17/13 | 19/17/13 | ▲ 20/19/13 | ▲ 18/17/14 |
| FLUID DEGRADA | TION | method | limit/base | current | history1 | history2 |
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 0.4 | 0.33 | 0.28 | 0.27 |



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NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

>0.05

White Metal

Yellow Metal

Precipitate

Silt

Debris

Odor

Sand/Dirt

Appearance

Free Water

Emulsified Water

FLUID PROPERTIES

NONE

NONE

NONE

NONE

LIGHT

NONE

NORML

NORML

NEG

NEG

NONE

NONE

NONE

NONE

NONE

NONE

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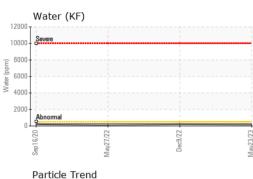
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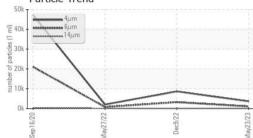
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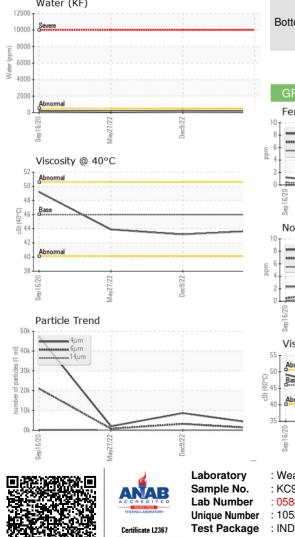
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Visc @ 40°C cSt ASTM D445 46 43.7 43.2 43.9 SAMPLE IMAGES Color Water (KF) Bottom GRAPHS Ferrous Alloys Particle Count 491 52 122,880 30,720 7,680 20 3 Dec9/22 Vlav23/23 140 (per 1 1,920 6661 Non-ferrous Metals 480 120 30 Dec9/22 21 Viscosity @ 40°C Acid Number (B) 0.50 HOX 0.40 Base Ē 0.30 ළි 0.20 Abnorm ₹ 0.10 0.00 Dec9/22 Dec9/22 Mav27/22 Mav23/23 Mav27/22 Sep. PERLEN CONVERTING LLC : WearCheck USA - 501 Madison Ave., Cary, NC 27513 135 ALGONQUIN PKWY : KC98847 Received : 22 Jun 2023 WHIPPANY, NJ : 05880891 Diagnosed : 26 Jun 2023 : 10525994 Diagnostician : Don Baldridge US 07981 : IND 2 Contact: Service Manager 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. T: F: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) Contact/Location: Service Manager - PERWHIKC Page 2 of 2