

OIL ANALYSIS REPORT

SAMPLE INFORMATION method limit/base

DIRT

history1

current

history2

Machine Id GEA K201B Component Screw Compressor Fluid {not provided} (300 GAL)

DIAGNOSIS

A Recommendation

We recommend you service the filters on this component if applicable. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil. Elemental level of silicon (Si) above normal.

Fluid Condition

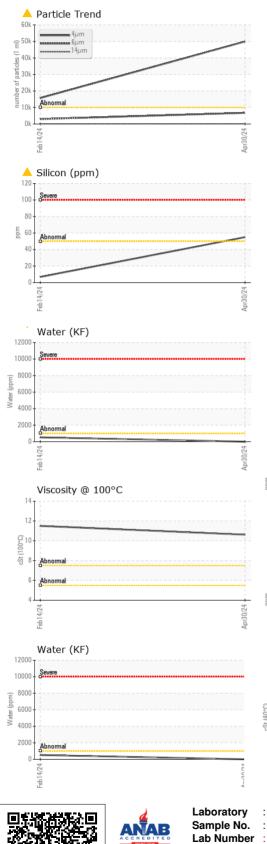
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

| SAMPLE INFORM | ATION | method | limit/base | current | history1 | history2 |
|---|------------------|--|------------------------|----------------------|--------------------|----------|
| Sample Number | | Client Info | | TO90003163 | TO90003227 | |
| Sample Date | | Client Info | | 30 Apr 2024 | 14 Feb 2024 | |
| Machine Age | hrs | Client Info | | 2290 | 0 | |
| Oil Age | hrs | Client Info | | 0 | 0 | |
| Oil Changed | | Client Info | | Filtered | N/A | |
| Sample Status | | | | ABNORMAL | ATTENTION | |
| · | | | | ADNONMAL | ATTENTION | |
| WEAR METALS | | method | limit/base | current | history1 | history2 |
| Iron | ppm | ASTM D5185m | >60 | 0 | 0 | |
| Chromium | ppm | ASTM D5185m | >4 | 0 | <1 | |
| Nickel | ppm | ASTM D5185m | | 0 | 0 | |
| Titanium | ppm | ASTM D5185m | | 0 | 0 | |
| Silver | ppm | ASTM D5185m | | <1 | 0 | |
| Aluminum | ppm | ASTM D5185m | >5 | 0 | 0 | |
| Lead | ppm | ASTM D5185m | >10 | 0 | 0 | |
| Copper | ppm | ASTM D5185m | >30 | 2 | 0 | |
| Tin | ppm | ASTM D5185m | >15 | <1 | <1 | |
| Vanadium | ppm | ASTM D5185m | | 0 | 0 | |
| Cadmium | ppm | ASTM D5185m | | 0 | 0 | |
| ADDITIVES | | method | limit/base | current | history1 | history2 |
| Boron | ppm | ASTM D5185m | | 0 | 0 | |
| Barium | | ASTM D5185m | | 0 | 0 | |
| | ppm | ASTM D5185m | | 0 | 0 | |
| Molybdenum | ppm | ASTM D5185m | | ۰ <1 | | |
| Manganese | ppm | ASTM D5185m | | 0 | <1 2 | |
| Magnesium Calcium | ppm | ASTM D5185m | | 0 | 15 | |
| | ppm | ASTM D5185m | | 11 | 19 | |
| Phosphorus Zinc | ppm | ASTM D5185m | | 0 | 5 | |
| Sulfur | ppm | ASTM D5185m | | 83 | 0 | |
| | ppm | | | 03 | | |
| CONTAMINANTS | | method | limit/base | current | history1 | history2 |
| Silicon | ppm | ASTM D5185m | >50 | <mark>/</mark> 55 | 7 | |
| Sodium | ppm | ASTM D5185m | | 2 | 0 | |
| Potassium | ppm | ASTM D5185m | >20 | 0 | 0 | |
| Water | % | ASTM D6304 | >0.1 | 0.00 | 0.051 | |
| ppm Water | ppm | ASTM D6304 | >1000 | 0 | 519 | |
| FLUID CLEANLIN | IESS | method | limit/base | current | history1 | history2 |
| Particles >4µm | | ASTM D7647 | >10000 | 49922 | 15701 | |
| Particles >6µm | | ASTM D7647 | >2500 | <u> </u> | 2983 | |
| Particles >14µm | | ASTM D7647 | >320 | 100 | 75 | |
| | | | 0.0 | | 4.5 | |
| Particles >21µm | | ASTM D7647 | >80 | 17 | 15 | |
| Particles >21µm Particles >38µm | | ASTM D7647 ASTM D7647 | >80 >20 | 17 1 | 15 | |
| | | | | | | |
| Particles >38µm | | ASTM D7647 | >20 | 1 | 1 | |
| Particles >38µm Particles >71µm Oil Cleanliness | | ASTM D7647 ASTM D7647 ISO 4406 (c) | >20 >4 >20/18/15 | 1 0 ▲ 23/20/14 | 1 0 21/19/13 | |
| Particles >38μm Particles >71μm | TION ma KOH/a | ASTM D7647 ASTM D7647 | >20 >4 | 1 0 | 1 0 | |

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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 | LIGHT | LIGHT | |
| Parented Summer Science 504 | Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | |
| 24 | Appearance | scalar | *Visual | NORML | NORML | NORML | |
| Apr30/24 | | | | | | NORML | |
| 4 | Odor | scalar | *Visual | NORML | NORML | | |
| | Emulsified Water | scalar | *Visual | >0.1 | NEG | NEG | |
| | Free Water | scalar | *Visual | | NEG | NEG | |
| | FLUID PROPERT | FIES | method | limit/base | current | history1 | history2 |
| | Visc @ 40°C | cSt | ASTM D445 | | 59.5 | 74.5 | |
| | Visc @ 100°C | cSt | ASTM D445 | | 10.61 | 11.5 | |
| | Viscosity Index (VI) | Scale | ASTM D2270 | | 170 | 147 | |
| | SAMPLE IMAGE | S | method | limit/base | current | history1 | history2 |
| Apr30/24 | | | | | | | |
| Ap | Color | | | | a | | no image |
| 1 | | | | | | | _ |
| | | | | | | | |
| | Bottom | | | | | | no image |
| | | | | | k / | | |
| | GRAPHS | | | | | | |
| | Ferrous Alloys | | | | Particle Count | : | |
| Apr30/24 | 10 8 | | | 491,520 |] | | T ²⁶ |
| A | chromium | | | 122,880 | Severe | | -24 |
| | E 4 | | | 30,720 | N | | -22 |
| | 2 - | | | | Abnormat | | |
| | 0 | | | | | | -20 |
| | Feb 14/24 | | | Apr30/24 (per 1 m]) | | | -18 |
| | | | | A cles (| 1. | | |
| | Non-ferrous Meta | S | | Apr30/24 Apr30/24 480 150 150 150 | | | +20 +18 +16 +14 |
| | 8 copper | | | ja 120 | | | -14 |
| | | | | | | | -12 |
| 24 | | | | 30 | | | |
| | 2 - | | | 8 | - | | -10 |
| Apr30/24 | *************************************** | | ****** | | | | 8 |
| Apr30, | 24 0 | | | 2 2 | † | | |
| Apr30. | Feb 14/24 0 | | | Apr30/24 | | | |
| Apr30 | Viscosity @ 40°C | | | 4 | م بر قبر Acid Number | 14µ 21µ | 38µ 71µ |
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| Apr30 | Viscosity @ 40°C | | | 4 | | 14µ 21µ | 38µ 71µ |
| Apr30 | Viscosity @ 40°C | | | (3) 0.05 (3) HO 0.04 (3) HO 0.03 (4) HO 0.02 (4) HO 0.02 (4) HO 0.01 (4) HO 0.01 (4) HO 0.01 (4) HO 0.01 (4) HO 0.01 (4) HO 0.05 (4) HO 0. | Acid Number | 14µ 21µ | |
| Apr30 | Viscosity @ 40°C | | | (3) 0.05 (3) HO 0.04 (3) HO 0.03 (4) HO 0.02 (4) HO 0.02 (4) HO 0.01 (4) HO 0.01 (4) HO 0.01 (4) HO 0.01 (4) HO 0.01 (4) HO 0.05 (4) HO 0. | Acid Number | 14µ 21µ | |
| Apr30. | Viscosity @ 40°C | | | 4 | | 14µ 21µ | 38µ 71µ |
| According to the second s | Viscosity @ 40°C | 1 Madiso | n Ave Carv | Apr30/24 40:30/24 60:0 Acid Number fing 20:0 | Acid Number | | |
| Laboratory Sample No. | Viscosity @ 40°C | 1 Madiso Recei | | Apr30/24 40:30/24 60:0 Acid Number fing 20:0 | Acid Number | | |
| Laboratory | Viscosity @ 40°C | | ived : 20 ed : 31 | (10.05 940.05 940.03 940.03 940.03 940.03 940.03 940.03 940.03 940.03 940.03 940.03 940.03 940.03 940.05 94 | Acid Number | | NGS - PECO 473 CR 11 PECOS, T |
| Laboratory Sample No. Lab Number Unique Number | Viscosity @ 40°C | Recei Teste Diagr | ived : 20 ed : 31 nosed : 31 | (10.05 90.05 90.02 90.02 90.02 90.02 90.02 90.02 90.02 90.02 90.02 90.02 90.02 90.02 90.03 90.02 90.03 90.02 90.03 90.03 90.02 90.04 90.02 90.04 90.02 90.05 90.02 90.04 90.02 90.05 90.05 90.02 90.05 90.02 90.04 90.02 90.05 90.05 90.02 90.05 90.05 90.02 90.05 9 | Acid Number | KINETIK HOLDI | NGS - PECO 473 CR 11 PECOS, T US 7977 |
| Laboratory Sample No. Lab Number Unique Number Test Package | Viscosity @ 40°C | Recei Teste Diagr sts: KF, K | ived : 20 ed : 31 nosed : 31 XV100, PrtCo | , NC 27513 May 2024 May 2024 May 2024 - Jonath unt, VI) | Acid Number | KINETIK HOLDI | NGS - PECO 473 CR 11 PECOS, T |

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