

## **OIL ANALYSIS REPORT**

#### Sample Rating Trend

ISO

#### Machine Ic 6929215 (S/N 1119) Component

Compressor KAESER SIGMA (OEM) S-460 (--- GAL)

#### 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 moderate 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.

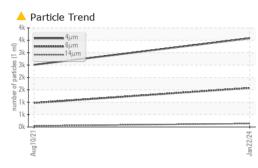
|                  |               | <u>I</u>          | Aug2021    | Jan2024          |             |          |
|------------------|---------------|-------------------|------------|------------------|-------------|----------|
| SAMPLE INFORM    | MATION        | method            | limit/base | current          | history1    | history2 |
| Sample Number    |               | Client Info       |            | KCPA008974       | KCP42812    |          |
| Sample Date      |               | Client Info       |            | 22 Jan 2024      | 10 Aug 2021 |          |
| Machine Age      | hrs           | Client Info       |            | 5764             | 2696        |          |
| Oil Age          | hrs           | Client Info       |            | 0                | 2696        |          |
| Oil Changed      |               | Client Info       |            | Changed          | Changed     |          |
| Sample Status    |               |                   |            | ATTENTION        | NORMAL      |          |
| WEAR METALS      |               | method            | limit/base | current          | history1    | history2 |
| Iron             | ppm           | ASTM D5185m       | >50        | 0                | 2           |          |
| Chromium         | ppm           | ASTM D5185m       | >10        | 0                | 0           |          |
| Nickel           | ppm           | ASTM D5185m       | >3         | 0                | 0           |          |
| Titanium         | ppm           | ASTM D5185m       |            | <1               | 0           |          |
| Silver           | ppm           | ASTM D5185m       | >2         | 0                | 0           |          |
| Aluminum         |               | ASTM D5185m       | >10        | 0                | 0           |          |
|                  | ppm           |                   |            | -                |             |          |
| Lead             | ppm           | ASTM D5185m       | >10        | <1               | 0           |          |
| Copper           | ppm           | ASTM D5185m       | >50        | 10               | 12          |          |
| Tin              | ppm           | ASTM D5185m       | >10        | <1               | 0           |          |
| Antimony         | ppm           | ASTM D5185m       |            |                  | 0           |          |
| Vanadium         | ppm           | ASTM D5185m       |            | 0                | 0           |          |
| Cadmium          | ppm           | ASTM D5185m       |            | 0                | 0           |          |
| ADDITIVES        |               | method            | limit/base | current          | history1    | history2 |
| Boron            | ppm           | ASTM D5185m       |            | 0                | 21          |          |
| Barium           | ppm           | ASTM D5185m       | 90         | 28               | 0           |          |
| Molybdenum       | ppm           | ASTM D5185m       |            | 0                | 0           |          |
| Manganese        | ppm           | ASTM D5185m       |            | <1               | <1          |          |
| Magnesium        | ppm           | ASTM D5185m       | 90         | 60               | 58          |          |
| Calcium          | ppm           | ASTM D5185m       | 2          | 0                | <1          |          |
| Phosphorus       | ppm           | ASTM D5185m       |            | 0                | 6           |          |
| Zinc             | ppm           | ASTM D5185m       |            | 1                | 9           |          |
| Sulfur           | ppm           | ASTM D5185m       |            | 17683            | 17280       |          |
|                  |               |                   | 1          |                  |             |          |
| CONTAMINANTS     | 5             | method            | limit/base |                  | history1    | history2 |
| Silicon          | ppm           | ASTM D5185m       | >25        | <1               | 3           |          |
| Sodium           | ppm           | ASTM D5185m       |            | 15               | 21          |          |
| Potassium        | ppm           | ASTM D5185m       | >20        | 2                | 3           |          |
| Water            | %             | ASTM D6304        | >0.05      | 0.012            | 0.034       |          |
| ppm Water        | ppm           | ASTM D6304        | >500       | 129              | 340.1       |          |
| FLUID CLEANLIN   | NESS          | method            | limit/base | current          | history1    | history2 |
| Particles >4µm   |               | ASTM D7647        |            | 3578             | 2511        |          |
| Particles >6µm   |               | ASTM D7647        | >1300      | <b>1576</b>      | 971         |          |
| Particles >14µm  |               | ASTM D7647        | >80        | <b>1</b> 36      | 47          |          |
| Particles >21µm  |               | ASTM D7647        | >20        | <b>4</b> 1       | 9           |          |
| Particles >38μm  |               | ASTM D7647        | >4         | 2                | 0           |          |
| Particles >71µm  |               | ASTM D7647        |            | 0                | 0           |          |
| Oil Cleanliness  |               | ISO 4406 (c)      | >/17/13    | ▲ 19/18/14       | 17/13       |          |
| FLUID DEGRADA    | ATI <u>ON</u> | method            | limit/base | current          | history1    | history2 |
| Acid Number (AN) | mg KOH/g      | ASTM D8045        | 0.4        | 0.29             | 0.263       |          |
| ·24·08) Rev: 1   | manoning      | . 10 . 10 . 200-0 |            | ontact/Location: |             |          |

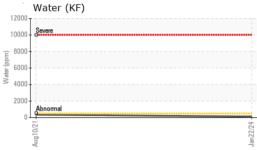
Report Id: STASHETX [WUSCAR] 06076880 (Generated: 02/02/2024 18:24:08) Rev: 1

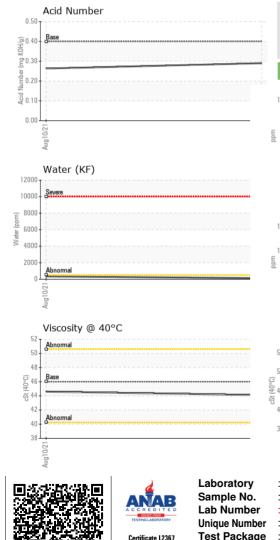
Contact/Location: Service Manager - STASHETX



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|        | VISUAL                   |        | method    | limit/base   | current        | history1                                | history  |
|--------|--------------------------|--------|-----------|--|----------------|---|----------|
|        | 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 PROPER             | TIES   | method    | limit/base   | current        | history1                                | history  |
|        | Visc @ 40°C              | cSt    | ASTM D445 | 46   | 44.1           | 44.6                                    |          |
|        | SAMPLE IMAGE             | S      | method    | limit/base   | current        | history1                                | history  |
|        |                          |        |           |  |                |   |          |
| -      | Color                    |        |           |  | 0-             |   | no image |
|        |                          |        |           |  |                |   |          |
|        | _                        |        |           | A  |                | (192)                                   |          |
|        | Bottom                   |        |           |  |                | C P                                     | no imag  |
|        |                          |        |           |  |                |   |          |
|        | GRAPHS<br>Ferrous Alloys |        |           |  | Particle Count | <u>-</u>                                |          |
|        |                          |        |           | 491,520  |                |   |          |
|        | 8 - Iron chromium        |        |           | 122,880  |                |   |          |
| 2000   | 6 - nickel               |        |           |  |                |   |          |
|        | 4                        |        |           | 30,720   | t              |   |          |
|        |                          |        | _ <u></u> | 7,680  | · ·            |   |          |
|        | 21.                      |        |           | Jan22/24 Jan | ~ `.           |   |          |
|        | 0                        |        |           | Jan 22<br>s (per )   |                | 1                                       |          |
|        | Aug10/2                  |        |           | -00  |                | 1 N N N N N N N N N N N N N N N N N N N |          |
|        | Non-ferrous Meta         | ls     |           | :븙 480   | //             |   |          |
|        |                          | lls    |           | ted to 120   |                |   |          |
|        | Non-ferrous Meta         | IIS    |           | 120  | 1              |   |          |
|        | Non-ferrous Meta         | IIs    |           | of pa  |                |   |          |
|        | Non-ferrous Meta         | ıls    |           | 30   |                |   |          |
|        | Non-ferrous Meta         | IIS    |           | 8  | Bbresemal      |   |          |
| 101010 | Non-ferrous Meta         | Ils    |           | 8  |                |   |          |
|        | Non-ferrous Meta         | Ils    |           | 8  | Bioremal       |   |          |
| 2000   | Non-ferrous Meta         |        |           | 30<br>8<br>1<br>5/2722<br>2<br>2<br>2<br>2<br>4  | Acid Number    | 14μ 21μ                                 | 38μ 7    |
|        | Non-ferrous Meta         | lls    |           | 30<br>8<br>1<br>5/2722<br>2<br>2<br>2<br>2<br>4  | Acid Number    | 14μ 21μ                                 | 38µ 7    |
|        | Non-ferrous Meta         |        |           | 30<br>8<br>1<br>5/2722<br>2<br>2<br>2<br>2<br>4  | Acid Number    | 14μ 21μ                                 | 38µ 7    |
|        | Non-ferrous Meta         | IIS    |           | 30<br>8<br>1<br>5/2722<br>2<br>2<br>2<br>2<br>4  | Acid Number    | 14μ 21μ                                 | 38µ 71   |
|        | Non-ferrous Meta         | IIS    |           | 30<br>8<br>1<br>5/2722<br>2<br>2<br>2<br>2<br>4  | Acid Number    | 14μ 21μ                                 | 38µ 7    |
|        | Non-ferrous Meta         |        |           | 30<br>8<br>1<br>5/2722<br>2<br>2<br>2<br>2<br>4  | Acid Number    | 14μ 21μ                                 | 38µ 7    |
|        | Non-ferrous Meta         |        |           | 8  | Acid Number    | 14μ 21μ                                 | 38µ 7    |

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)

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