

# **PROBLEM SUMMARY**

Sample Rating Trend

ISO

Machine Id

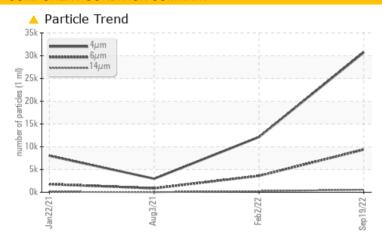
4144746 (S/N 1064)

Component

Compressor

KAESER SIGMA (OEM) M-460 (--- GAL)

## **COMPONENT CONDITION SUMMARY**



## RECOMMENDATION

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

| PROBLEMATIC TEST RESULTS |              |         |                 |               |        |  |  |
|--------------------------|--------------|---------|-----------------|---------------|--------|--|--|
| Sample Status            |              |         | ABNORMAL        | ABNORMAL      | NORMAL |  |  |
| Particles >6µm           | ASTM D7647   | >1300   | <b>9365</b>     | <b>△</b> 3600 | 868    |  |  |
| Particles >14μm          | ASTM D7647   | >80     | <b>546</b>      | <u>4</u> 245  | 43     |  |  |
| Particles >21µm          | ASTM D7647   | >20     | <u>^</u> 64     | <u>^</u> 76   | 9      |  |  |
| Oil Cleanliness          | ISO 4406 (c) | >/17/13 | <b>22/20/16</b> | <u> </u>      | 17/13  |  |  |

Customer Id: PRIVES Sample No.: KCP28640 Lab Number: 05648934 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 jhester@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

## **RECOMMENDED ACTIONS**

There are no recommended actions for this sample.

## HISTORICAL DIAGNOSIS

## 02 Feb 2022 Diag: Jonathan Hester

ISO



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



## 03 Aug 2021 Diag: Angela Borella

NORMAL



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



### 22 Jan 2021 Diag: Don Baldridge

ISO

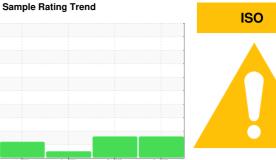


Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.





# **OIL ANALYSIS REPORT**



4144746 (S/N 1064)

Component

Compressor

KAESER SIGMA (OEM) M-460 (--- GAL)

## **DIAGNOSIS**

#### Recommendation

The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

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.

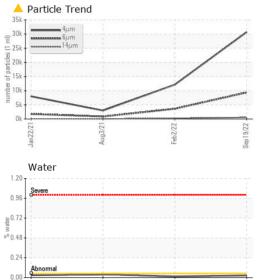
|                 |        | Jan202       | 1 Aug2021  | Feb 2022 S      | pp2022         |             |
|-----------------|--------|--------------|------------|-----------------|----------------|-------------|
| SAMPLE INFORM   | MATION | method       | limit/base | current         | history 1      | history 2   |
| Sample Number   |        |              |            | KCP28640        | KCP38154       | KCP37567    |
| Sample Date     |        |              |            | 19 Sep 2022     | 02 Feb 2022    | 03 Aug 2021 |
| Machine Age     | hrs    |              |            | 81631           | 76332          | 72002       |
| Oil Age         | hrs    |              |            | 5299            | 4330           | 4604        |
| Oil Changed     |        |              |            | Not Changd      | Changed        | Changed     |
| Sample Status   |        |              |            | ABNORMAL        | ABNORMAL       | NORMAL      |
| WEAR METALS     |        | method       | limit/base | current         | history 1      | history 2   |
| Iron            | ppm    | ASTM D5185m  | >50        | <1              | <1             | 0           |
| Chromium        | ppm    | ASTM D5185m  | >10        | <1              | 0              | 0           |
| Nickel          | ppm    | ASTM D5185m  | >3         | <1              | 0              | 0           |
| Titanium        | ppm    | ASTM D5185m  | >3         | <1              | 0              | 0           |
| Silver          | ppm    | ASTM D5185m  | >2         | 0               | 0              | 0           |
| Aluminum        | ppm    | ASTM D5185m  | >10        | 0               | <1             | 0           |
| Lead            | ppm    | ASTM D5185m  | >10        | 1               | 0              | 0           |
| Copper          | ppm    | ASTM D5185m  | >50        | 2               | <1             | 1           |
| Tin             | ppm    | ASTM D5185m  | >10        | <1              | 0              | 0           |
| Antimony        | ppm    | ASTM D5185m  |            |                 | 0              | 0           |
| Vanadium        | ppm    | ASTM D5185m  |            | <1              | 0              | 0           |
| Cadmium         | ppm    | ASTM D5185m  |            | <1              | 0              | 0           |
| ADDITIVES       |        | method       | limit/base | current         | history 1      | history 2   |
| Boron           | ppm    | ASTM D5185m  | 0          | <1              | 23             | 0           |
| Barium          | ppm    | ASTM D5185m  | 90         | 18              | 12             | 10          |
| Molybdenum      | ppm    | ASTM D5185m  | 0          | <1              | 0              | 0           |
| Manganese       | ppm    | ASTM D5185m  |            | <1              | 0              | 0           |
| Magnesium       | ppm    | ASTM D5185m  | 100        | 55              | 80             | 65          |
| Calcium         | ppm    | ASTM D5185m  | 0          | 7               | 2              | 0           |
| Phosphorus      | ppm    | ASTM D5185m  | 0          | 18              | 3              | 5           |
| Zinc            | ppm    | ASTM D5185m  | 0          | 13              | 0              | 0           |
| Sulfur          | ppm    | ASTM D5185m  | 23500      | 12606           | 18582          | 17410       |
| CONTAMINANTS    | 5      | method       | limit/base | current         | history 1      | history 2   |
| Silicon         | ppm    | ASTM D5185m  | >25        | 2               | <1             | 0           |
| Sodium          | ppm    | ASTM D5185m  |            | 14              | 17             | 17          |
| Potassium       | ppm    | ASTM D5185m  | >20        | 10              | 0              | 2           |
| Water           | %      | ASTM D6304   | >0.05      | 0.025           | 0.014          | 0.037       |
| ppm Water       | ppm    | ASTM D6304   | >500       | 257.4           | 142.3          | 370.9       |
| FLUID CLEANLIN  | IESS   | method       | limit/base | current         | history 1      | history 2   |
| Particles >4μm  |        | ASTM D7647   |            | 30711           | 12136          | 2974        |
| Particles >6µm  |        | ASTM D7647   | >1300      | <b>9365</b>     | <b>▲</b> 3600  | 868         |
| Particles >14μm |        | ASTM D7647   | >80        | <b>546</b>      | <u>245</u>     | 43          |
| Particles >21µm |        | ASTM D7647   | >20        | <u></u> 64      | <b>▲</b> 76    | 9           |
| Particles >38μm |        | ASTM D7647   | >4         | 1               | <u>^</u> 6     | 1           |
| Particles >71μm |        | ASTM D7647   | >3         | 0               | 0              | 0           |
| Oil Cleanliness |        | ISO 4406 (c) | >/17/13    | <b>22/20/16</b> | <b>△</b> 19/15 | 17/13       |
| FLUID DEGRADA   | ATION  | method       | limit/base | current         | history 1      | history 2   |
|                 |        |              |            |                 |                |             |

0.37

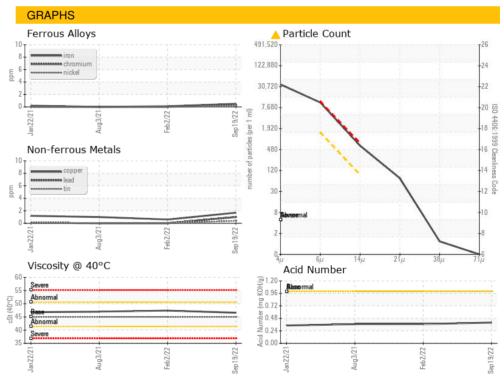
0.369



# **OIL ANALYSIS REPORT**



| VISUAL                  |        | method    | limit/base | current | history 1 | history 2 |
|-------------------------|--------|-----------|------------|---------|-----------|-----------|
| White Metal             | scalar | *Visual   | NONE       | NONE    | NONE      | NONE      |
| Yellow Metal            | scalar | *Visual   | NONE       | NONE    | NONE      | NONE      |
| Precipitate             | scalar | *Visual   | NONE       | NONE    | NONE      | NONE      |
| Silt                    | scalar | *Visual   | NONE       | NONE    | NONE      | NONE      |
| Debris                  | scalar | *Visual   | NONE       | NONE    | NONE      | NONE      |
| Sand/Dirt               | scalar | *Visual   | NONE       | NONE    | NONE      | NONE      |
| Appearance              | scalar | *Visual   | NORML      | NORML   | NORML     | NORML     |
| Odor                    | scalar | *Visual   | NORML      | NORML   | NORML     | NORML     |
| <b>Emulsified Water</b> | scalar | *Visual   | >0.05      | NEG     | NEG       | NEG       |
| Free Water              | scalar | *Visual   |            | NEG     | NEG       | NEG       |
| FLUID PROPERT           | ΓIES   | method    | limit/base | current | history 1 | history 2 |
| Visc @ 40°C             | cSt    | ASTM D445 | 45         | 46.6    | 47.4      | 47.0      |
| SAMPLE IMAGE            | S      | method    | limit/base | current | history 1 | history 2 |
| Color                   |        |           |            |         |           |           |
| Bottom                  |        |           |            |         |           |           |







Certificate L2367

Laboratory Sample No.

Lab Number

Unique Number : 10143473

: KCP28640 : 05648934

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 22 Sep 2022

Diagnosed : 26 Sep 2022 Diagnostician : Jonathan Hester

Test Package : IND 2 ( Additional Tests: KF, PrtCount )

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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