

## **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# 4188436 (S/N 1008)

### Component Compressor Fluid KAESER SIGMA (OEM) M-460 (--- GAL)

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

#### Fluid Condition

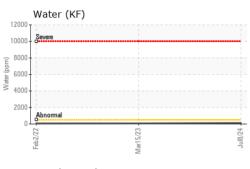
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

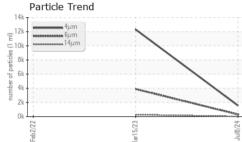
| SAMPLE INFORM                     | 1ATION   | method       | limit/base | current         | history1                 | history2             |
|-----------------------------------|----------|--------------|------------|-----------------|--------------------------|----------------------|
| Sample Number                     |          | Client Info  |            | KCPA018204      | KCP54036                 | KCP48643             |
| Sample Date                       |          | Client Info  |            | 08 Jul 2024     | 15 Mar 2023              | 02 Feb 2022          |
| Machine Age                       | hrs      | Client Info  |            | 53829           | 46377                    | 39971                |
| Oil Age                           | hrs      | Client Info  |            | 0               | 0                        | 740                  |
| Oil Changed                       |          | Client Info  |            | Changed         | Changed                  | Changed              |
| Sample Status                     |          |              |            | NORMAL          | ABNORMAL                 | ABNORMAL             |
| WEAR METALS                       |          | method       | limit/base | current         | history1                 | history2             |
| Iron                              | ppm      | ASTM D5185m  | >50        | 0               | 0                        | 0                    |
| 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                        | 3                    |
| Aluminum                          | ppm      | ASTM D5185m  | >10        | <1              | <1                       | <1                   |
| Lead                              | ppm      | ASTM D5185m  | >10        | 0               | 0                        | 0                    |
| Copper                            | ppm      | ASTM D5185m  | >50        | 17              | 10                       | 14                   |
| Tin                               | ppm      | ASTM D5185m  | >10        | <1              | 0                        | <1                   |
| Antimony                          | ppm      | ASTM D5185m  |            |                 |                          | 0                    |
| 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               | 0                        | 0                    |
| Barium                            | ppm      | ASTM D5185m  | 90         | 0               | 0                        | 0                    |
| Molybdenum                        | ppm      | ASTM D5185m  | 0          | 0               | 0                        | 0                    |
| Manganese                         | ppm      | ASTM D5185m  |            | 0               | 0                        | 0                    |
| Magnesium                         | ppm      | ASTM D5185m  | 100        | 0               | 0                        | 0                    |
| Calcium                           | ppm      | ASTM D5185m  | 0          | 0               | 0                        | 0                    |
| Phosphorus                        | ppm      | ASTM D5185m  | 0          | 0               | <1                       | 3                    |
| Zinc                              | ppm      | ASTM D5185m  | 0          | 0               | 22                       | 0                    |
| Sulfur                            | ppm      | ASTM D5185m  | 23500      | 18624           | 19355                    | 16117                |
| CONTAMINANTS                      |          | method       | limit/base | current         | history1                 | history2             |
| Silicon                           | ppm      | ASTM D5185m  | >25        | <1              | <1                       | 0                    |
| Sodium                            | ppm      | ASTM D5185m  |            | <1              | 0                        | <1                   |
| Potassium                         | ppm      | ASTM D5185m  | >20        | 1               | 0                        | 0                    |
| Water                             | %        | ASTM D6304   | >0.05      | 0.013           | 0.006                    | 0.005                |
| ppm Water                         | ppm      | ASTM D6304   | >500       | 131             | 68.7                     | 56.9                 |
| FLUID CLEANLIN                    | ESS      | method       | limit/base | current         | history1                 | history2             |
| Particles >4µm                    |          | ASTM D7647   |            | 1553            | 12315                    |                      |
| Particles >6µm                    |          | ASTM D7647   | >1300      | 302             | <b>A</b> 3894            |                      |
| Particles >14µm                   |          | ASTM D7647   | >80        | 14              | <u> </u>                 |                      |
| Particles >21µm                   |          | ASTM D7647   | >20        | 4               | <b>4</b> 0               |                      |
| Particles >38µm                   |          | ASTM D7647   | >4         | 1               | 3                        |                      |
| Particles >71µm                   |          | ASTM D7647   |            | 0               | 0                        |                      |
| Oil Cleanliness                   |          | ISO 4406 (c) | >/17/13    | 18/15/11        | <b>A</b> 21/19/15        |                      |
| FLUID DEGRADA                     | TION     | method       | limit/base | current         | history1                 | history2             |
| Acid Number (AN)<br>53:11) Rev: 1 | mg KOH/g | ASTM D8045   | 1.0        | 0.49<br>Contaci | 0.47<br>t/Location: Ed L | 0.47<br>opez - RUSWH |

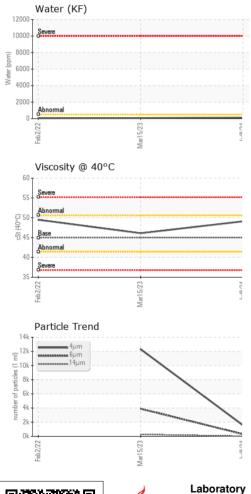
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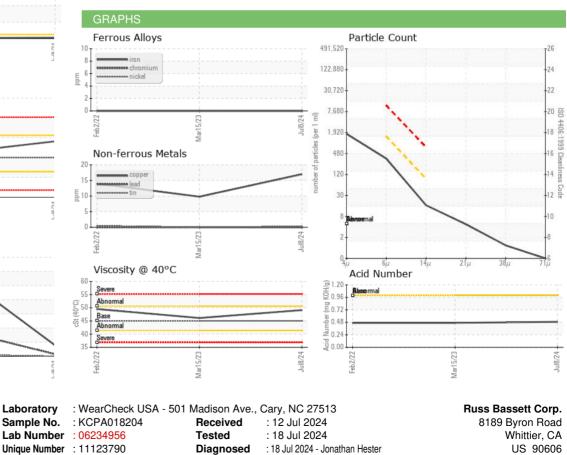
# **OIL ANALYSIS REPORT**







| VISUAL                       |            | method              | limit/base       | current         | history1         | history2         |
|------------------------------|------------|---------------------|------------------|-----------------|------------------|------------------|
| 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             | 🔺 MODER          |
| Sand/Dirt                    | scalar     | *Visual             | NONE             | NONE            | NONE             | NONE             |
| Appearance                   | scalar     | *Visual             | NORML            | NORML           | NORML            | NORML            |
| Odor                         | scalar     | *Visual             | NORML            | NORML           | NORML            | NORML            |
| Emulsified Water             | scalar     | *Visual             | >0.05            | NEG             | NEG              | NEG              |
| Free Water                   | scalar     | *Visual             |                  | NEG             | NEG              | NEG              |
|                              |            |                     |                  |                 |                  |                  |
| FLUID PROPERT                | IES        | method              |                  |                 | history1         | history2         |
| FLUID PROPERT<br>Visc @ 40°C | IES<br>cSt | method<br>ASTM D445 | limit/base<br>45 | current<br>49.1 | history1<br>46.1 | history2<br>49.5 |
|                              | cSt        |                     |                  |                 |                  |                  |
| Visc @ 40°C                  | cSt        | ASTM D445           | 45               | 49.1            | 46.1             | 49.5             |





Test Package : IND 2 (Additional Tests: KF, PrtCount) Certificate 12367 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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Sample No.

Contact/Location: Ed Lopez - RUSWHI