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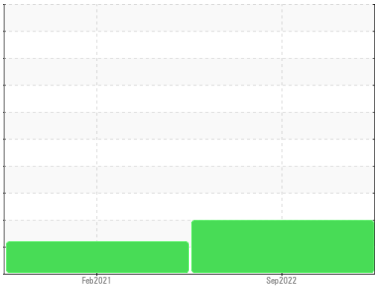
# PROBLEM SUMMARY

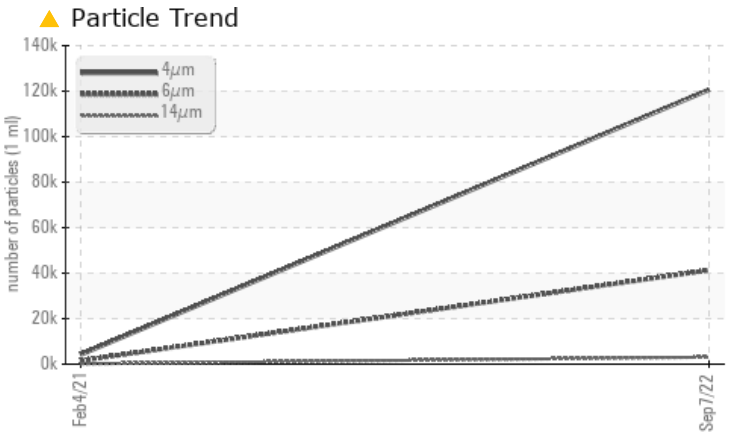
**Sample Rating Trend**




**ISO**

Machine Id
## 3057932 (S/N 1267)
Component
**Compressor**
Fluid
**KAESER SIGMA (OEM) M-460 (--- GAL)**

## COMPONENT CONDITION SUMMARY




## RECOMMENDATION

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

## PROBLEMATIC TEST RESULTS

| | | | | | | |
|---|---|---|---|---|---|---|
| Sample Status | | | | **ABNORMAL** | ATTENTION | --- |
| Particles >6µm | | ASTM D7647 | >1300 | ▲ **41279** | ▲ 1513 | --- |
| Particles >14µm | | ASTM D7647 | >80 | ▲ **3071** | ▲ 138 | --- |
| Particles >21µm | | ASTM D7647 | >20 | ▲ **690** | ▲ 32 | --- |
| Particles >38µm | | ASTM D7647 | >4 | ▲ **10** | 2 | --- |
| Oil Cleanliness | | ISO 4406 (c) | >--/17/13 | ▲ **24/23/19** | ▲ 18/14 | --- |

**Customer Id:** NEWFRA
**Sample No.:** KCP49349
**Lab Number:** 05640356
**Test Package:** IND 2

*To manage this report scan the QR code*

*To discuss the diagnosis or test data:*
Doug Bogart +1 (800)237-1369 x4016
dougb@wearcheckusa.com

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

## RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|---|---|---|---|---|
| Change Fluid | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |
| Change Filter | --- | --- | ? | Oil and filter change at the time of sampling has been noted. |

## HISTORICAL DIAGNOSIS

**04 Feb 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.

view report

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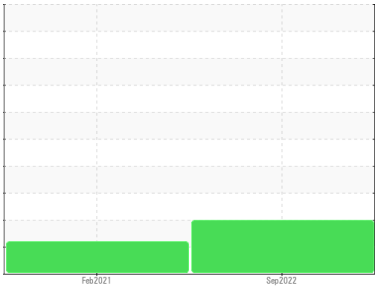
# OIL ANALYSIS REPORT

Sample Rating Trend




ISO

Machine Id
## 3057932 (S/N 1267)
Component
**Compressor**
Fluid
**KAESER SIGMA (OEM) M-460 (--- GAL)**

## DIAGNOSIS

**▲ Recommendation**
No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

**Wear**
All component wear rates are normal.

**▲ Contamination**
There is a high amount of particulates present in the oil.

**Fluid Condition**
The condition of the oil is suitable for further service.

| SAMPLE INFORMATION | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|
| Sample Number | | | **KCP49349** | KCP27855 | --- |
| Sample Date | | | **07 Sep 2022** | 04 Feb 2021 | --- |
| Machine Age | hrs | | **29721** | 26090 | --- |
| Oil Age | hrs | | **3631** | 3131 | --- |
| Oil Changed | | | **Changed** | Changed | --- |
| Sample Status | | | **ABNORMAL** | ATTENTION | --- |

| WEAR METALS | | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|---|
| Iron | ppm | ASTM D5185m | >50 | **<1** | <1 | --- |
| Chromium | ppm | ASTM D5185m | >10 | **0** | 0 | --- |
| Nickel | ppm | ASTM D5185m | >3 | **0** | 0 | --- |
| Titanium | ppm | ASTM D5185m | >3 | **0** | 0 | --- |
| Silver | ppm | ASTM D5185m | >2 | **<1** | 0 | --- |
| Aluminum | ppm | ASTM D5185m | >10 | **<1** | <1 | --- |
| Lead | ppm | ASTM D5185m | >10 | **<1** | 0 | --- |
| Copper | ppm | ASTM D5185m | >50 | **12** | 10 | --- |
| Tin | ppm | ASTM D5185m | >10 | **<1** | <1 | --- |
| Antimony | ppm | ASTM D5185m | | **---** | 0 | --- |
| Vanadium | ppm | ASTM D5185m | | **0** | 0 | --- |
| Cadmium | ppm | ASTM D5185m | | **<1** | 0 | --- |

| ADDITIVES | | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|---|
| Boron | ppm | ASTM D5185m | 0 | **0** | 12 | --- |
| Barium | ppm | ASTM D5185m | 90 | **0** | 0 | --- |
| Molybdenum | ppm | ASTM D5185m | 0 | **0** | 0 | --- |
| Manganese | ppm | ASTM D5185m | | **<1** | 0 | --- |
| Magnesium | ppm | ASTM D5185m | 100 | **25** | 31 | --- |
| Calcium | ppm | ASTM D5185m | 0 | **<1** | 0 | --- |
| Phosphorus | ppm | ASTM D5185m | 0 | **1** | 2 | --- |
| Zinc | ppm | ASTM D5185m | 0 | **47** | 60 | --- |
| Sulfur | ppm | ASTM D5185m | 23500 | **17942** | 17823 | --- |

| CONTAMINANTS | | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|---|
| Silicon | ppm | ASTM D5185m | >25 | **7** | 10 | --- |
| Sodium | ppm | ASTM D5185m | | **10** | 5 | --- |
| Potassium | ppm | ASTM D5185m | >20 | **2** | 0 | --- |
| Water | % | ASTM D6304 | >0.05 | **0.021** | 0.015 | --- |
| ppm Water | ppm | ASTM D6304 | >500 | **216.7** | 155.9 | --- |

| FLUID CLEANLINESS | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|
| Particles >4µm | ASTM D7647 | | **120625** | 4169 | --- |
| Particles >6µm | ASTM D7647 | >1300 | ▲ **41279** | ▲ 1513 | --- |
| Particles >14µm | ASTM D7647 | >80 | ▲ **3071** | ▲ 138 | --- |
| Particles >21µm | ASTM D7647 | >20 | ▲ **690** | ▲ 32 | --- |
| Particles >38µm | ASTM D7647 | >4 | ▲ **10** | 2 | --- |
| Particles >71µm | ASTM D7647 | >3 | **0** | 0 | --- |
| Oil Cleanliness | ISO 4406 (c) | >--/17/13 | ▲ **24/23/19** | ▲ 18/14 | --- |

| FLUID DEGRADATION | | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|---|
| Acid Number (AN) | mg KOH/g | ASTM D8045 | 1.0 | **0.37** | 0.381 | --- |

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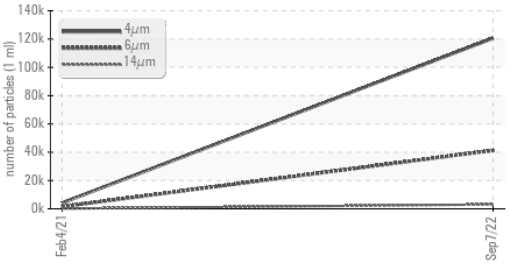
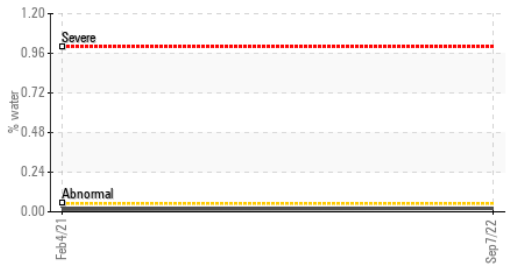
# OIL ANALYSIS REPORT

Particle Trend

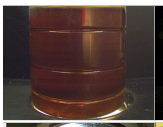
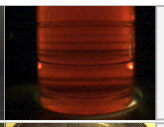
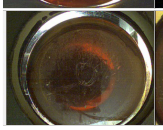
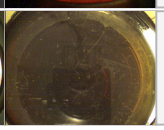



Water



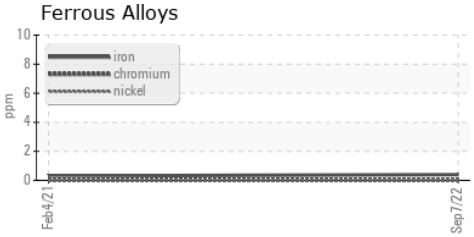

| VISUAL | | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|---|
| White Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Yellow Metal | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Precipitate | scalar | *Visual | NONE | **NONE** | NONE | --- |
| Silt | 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 PROPERTIES | | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|---|
| Visc @ 40°C | cSt | ASTM D445 | 45 | **46.3** | 46.6 | --- |

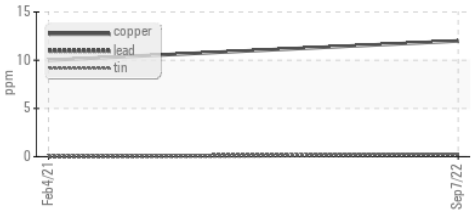
| SAMPLE IMAGES | method | limit/base | current | history 1 | history 2 |
|---|---|---|---|---|---|
| Color | | |  |  | *no image* |
| Bottom | | |  |  | *no image* |

## GRAPHS

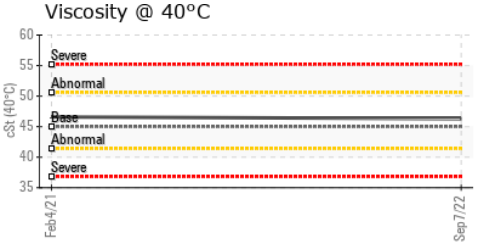
Ferrous Alloys



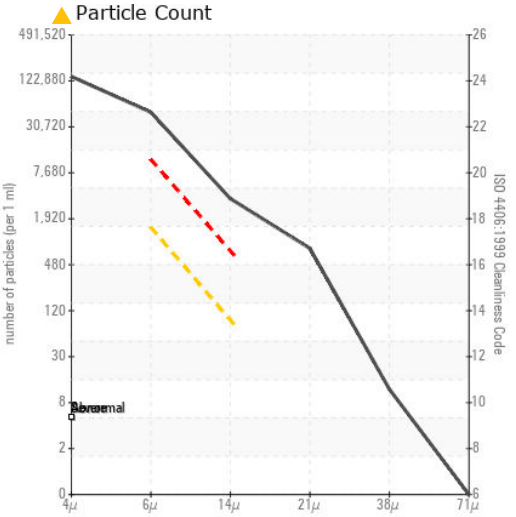

Non-ferrous Metals



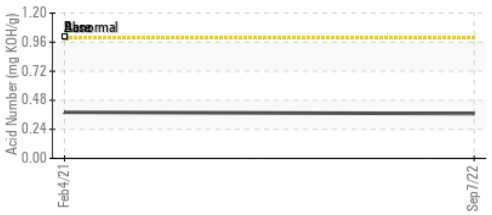

Viscosity @ 40°C




Particle Count




Acid Number




Certificate L2367

| | | | |
|---|---|---|---|
| **Laboratory** | : WearCheck USA - 501 Madison Ave., Cary, NC 27513 | | |
| **Sample No.** | : KCP49349 | **Received** | : 13 Sep 2022 |
| **Lab Number** | : 05640356 | **Diagnosed** | : 15 Sep 2022 |
| **Unique Number** | : 10129886 | **Diagnostician** | : Doug Bogart |
| **Test Package** | : IND 2 ( Additional Tests: KF, PrtCount ) | | |

**NEW VIEW MARBLE AND GRANITE**
1 MASTER DR
FRANKLIN, MA
USA 02038
Contact: Service Manager
T:
F:

*To discuss this sample report, contact Customer Service at 1-800-237-1369.*
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*Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)*