

# PROBLEM SUMMARY

Sample Rating Trend



ISO



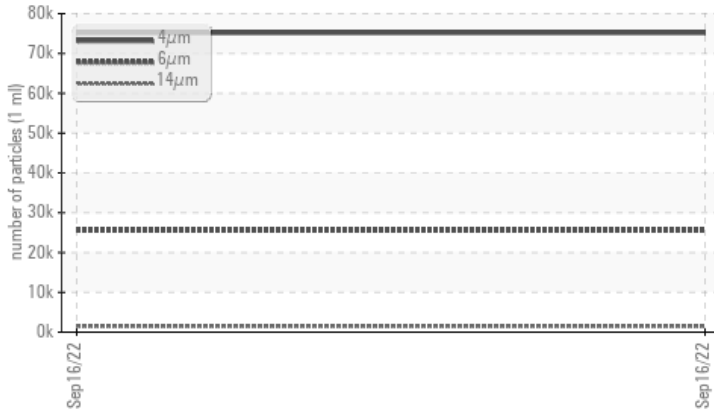
Machine Id  
**KAESER 4708730**

Component  
**Compressor**

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

## COMPONENT CONDITION SUMMARY

### ▲ Particle Trend



## RECOMMENDATION

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			<b>ABNORMAL</b>	---	---
Particles >6µm	ASTM D7647	>1300	▲ <b>25524</b>	---	---
Particles >14µm	ASTM D7647	>80	▲ <b>1478</b>	---	---
Particles >21µm	ASTM D7647	>20	▲ <b>175</b>	---	---
Particles >38µm	ASTM D7647	>4	▲ <b>6</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ <b>23/22/18</b>	---	---

**Customer Id:** MAXALT  
**Sample No.:** KCP50122  
**Lab Number:** 05648958  
**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](mailto:jhester@wearcheckusa.com)

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

## RECOMMENDED ACTIONS

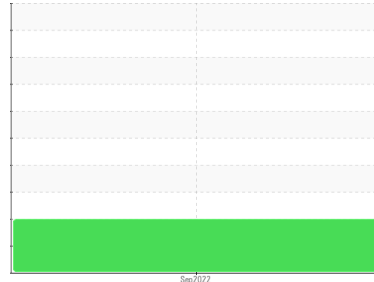
Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.

## HISTORICAL DIAGNOSIS



Machine Id  
**KAESER 4708730**

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



## DIAGNOSIS

### ▲ Recommendation

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

## SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number			<b>KCP50122</b>	---	---
Sample Date			<b>16 Sep 2022</b>	---	---
Machine Age	hrs		<b>6446</b>	---	---
Oil Age	hrs		<b>0</b>	---	---
Oil Changed			<b>Changed</b>	---	---
Sample Status			<b>ABNORMAL</b>	---	---

## WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm ASTM D5185m	>50	<b>&lt;1</b>	---	---
Chromium	ppm ASTM D5185m	>10	<b>0</b>	---	---
Nickel	ppm ASTM D5185m	>3	<b>&lt;1</b>	---	---
Titanium	ppm ASTM D5185m	>3	<b>0</b>	---	---
Silver	ppm ASTM D5185m	>2	<b>0</b>	---	---
Aluminum	ppm ASTM D5185m	>10	<b>0</b>	---	---
Lead	ppm ASTM D5185m	>10	<b>0</b>	---	---
Copper	ppm ASTM D5185m	>50	<b>11</b>	---	---
Tin	ppm ASTM D5185m	>10	<b>0</b>	---	---
Vanadium	ppm ASTM D5185m		<b>0</b>	---	---
Cadmium	ppm ASTM D5185m		<b>0</b>	---	---

## ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm ASTM D5185m	0	<b>0</b>	---	---
Barium	ppm ASTM D5185m	90	<b>0</b>	---	---
Molybdenum	ppm ASTM D5185m	0	<b>0</b>	---	---
Manganese	ppm ASTM D5185m		<b>&lt;1</b>	---	---
Magnesium	ppm ASTM D5185m	100	<b>18</b>	---	---
Calcium	ppm ASTM D5185m	0	<b>0</b>	---	---
Phosphorus	ppm ASTM D5185m	0	<b>13</b>	---	---
Zinc	ppm ASTM D5185m	0	<b>52</b>	---	---
Sulfur	ppm ASTM D5185m	23500	<b>20823</b>	---	---

## CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm ASTM D5185m	>25	<b>&lt;1</b>	---	---
Sodium	ppm ASTM D5185m		<b>9</b>	---	---
Potassium	ppm ASTM D5185m	>20	<b>5</b>	---	---
Water	% ASTM D6304	>0.05	<b>0.023</b>	---	---
ppm Water	ppm ASTM D6304	>500	<b>239.9</b>	---	---

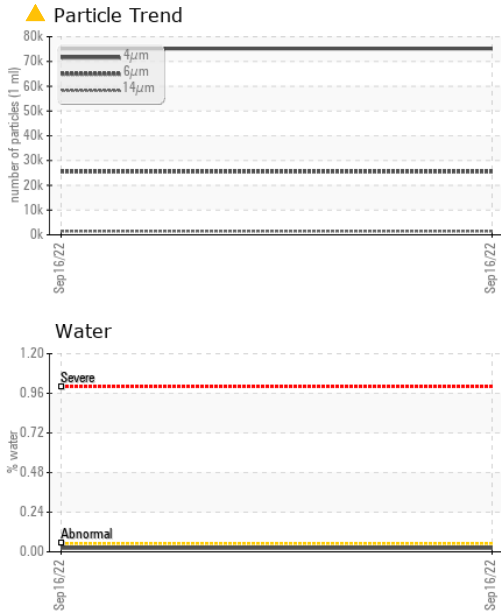
## FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		<b>75180</b>	---	---
Particles >6µm	ASTM D7647	>1300	<b>▲ 25524</b>	---	---
Particles >14µm	ASTM D7647	>80	<b>▲ 1478</b>	---	---
Particles >21µm	ASTM D7647	>20	<b>▲ 175</b>	---	---
Particles >38µm	ASTM D7647	>4	<b>▲ 6</b>	---	---
Particles >71µm	ASTM D7647	>3	<b>0</b>	---	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	<b>▲ 23/22/18</b>	---	---

## FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g ASTM D8045	1.0	<b>0.35</b>	---	---

# OIL ANALYSIS REPORT



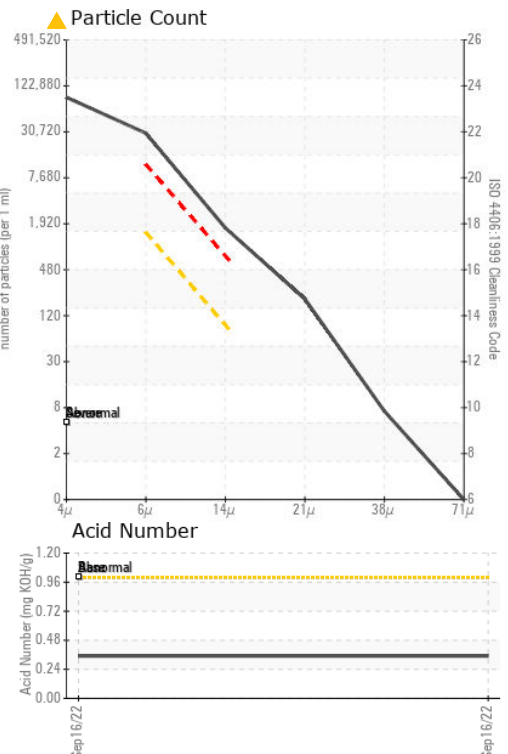
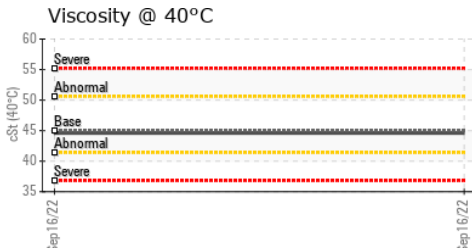
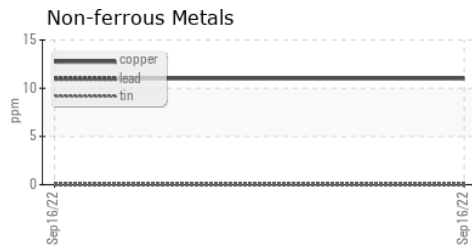
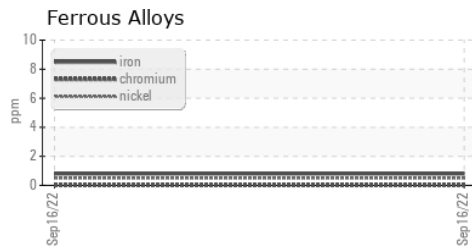
VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.05	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	45	44.6	---

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

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCP50122 **Received** : 22 Sep 2022  
**Lab Number** : 05648958 **Diagnosed** : 26 Sep 2022  
**Unique Number** : 10143497 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**MAXIMUM SECURITY SYSTEMS INC**  
 7482 ROBBINS RD  
 ALTOONA, AL  
 USA 35952  
 Contact: Service Manager

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)

T:  
F: