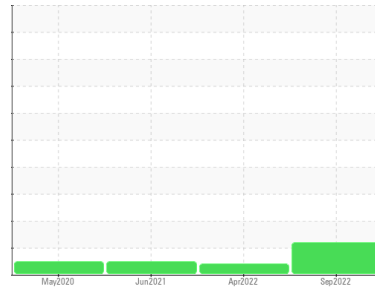


# PROBLEM SUMMARY

## Sample Rating Trend



ISO



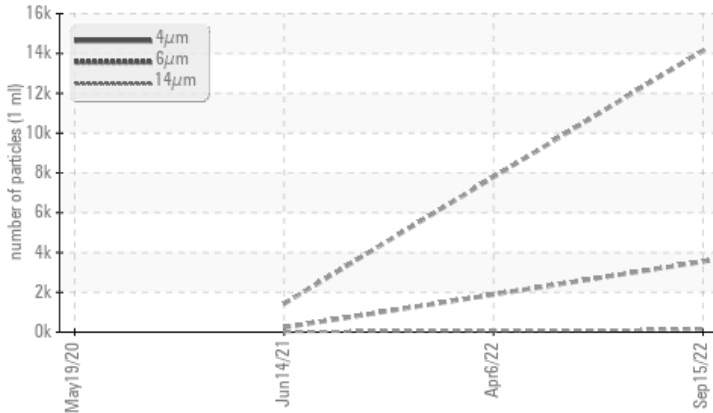
Machine Id  
**6458789 (S/N 1244)**

Component  
**Compressor**

Fluid  
**KAESER SIGMA (OEM) S-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			ABNORMAL	ABNORMAL	NORMAL
Particles >6µm	ASTM D7647	>1300	▲ 3546	---	235
Particles >14µm	ASTM D7647	>80	▲ 131	---	22
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 21/19/14	---	15/12

Customer Id: AMACHAKC  
Sample No.: KCP46300  
Lab Number: 05646572  
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

### 06 Apr 2022 Diag: Jonathan Hester

#### VIS DEBRIS



The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



### 14 Jun 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.

[view report](#)



### 19 May 2020 Diag: Jonathan Hester

#### NORMAL

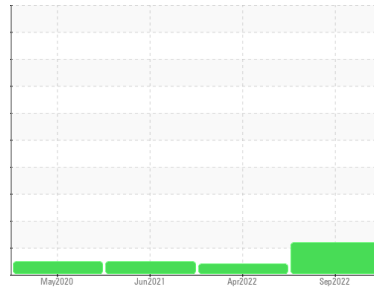


Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count on this sample. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

[view report](#)



Machine Id  
**6458789 (S/N 1244)**  
Component  
**Compressor**  
Fluid  
**KAESER SIGMA (OEM) S-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>KCP46300</b>	KCP44564	KCP33995
Sample Date			<b>15 Sep 2022</b>	06 Apr 2022	14 Jun 2021
Machine Age	hrs		<b>18348</b>	14990	10437
Oil Age	hrs		<b>6000</b>	2000	6000
Oil Changed			<b>Changed</b>	Not Changd	Changed
Sample Status			<b>ABNORMAL</b>	ABNORMAL	NORMAL

## WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >50	<b>0</b>	<1	<1
Chromium	ppm	ASTM D5185m >10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m >3	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m >3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	0
Lead	ppm	ASTM D5185m >10	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m >50	<b>4</b>	5	10
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	<1
Antimony	ppm	ASTM D5185m	<b>---</b>	---	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 90	<b>37</b>	28	35
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185m 90	<b>61</b>	76	70
Calcium	ppm	ASTM D5185m 2	<b>3</b>	3	3
Phosphorus	ppm	ASTM D5185m	<b>1</b>	8	3
Zinc	ppm	ASTM D5185m	<b>2</b>	<1	0
Sulfur	ppm	ASTM D5185m	<b>19408</b>	16065	16610

## CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	<b>&lt;1</b>	<1	<1
Sodium	ppm	ASTM D5185m	<b>36</b>	39	33
Potassium	ppm	ASTM D5185m >20	<b>12</b>	12	18
Water	%	ASTM D6304 >0.05	<b>0.028</b>	0.019	0.026
ppm Water	ppm	ASTM D6304 >500	<b>286.0</b>	196.5	268.6

## FLUID CLEANLINESS

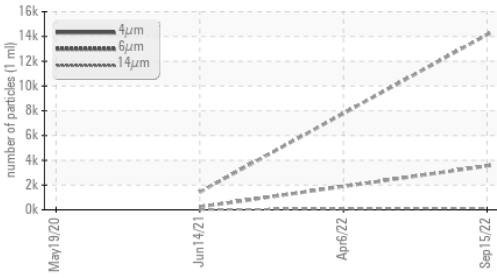
	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		<b>14143</b>	---	1427
Particles >6µm	ASTM D7647 >1300		<b>▲ 3546</b>	---	235
Particles >14µm	ASTM D7647 >80		<b>▲ 131</b>	---	22
Particles >21µm	ASTM D7647 >20		<b>18</b>	---	9
Particles >38µm	ASTM D7647 >4		<b>0</b>	---	0
Particles >71µm	ASTM D7647 >3		<b>0</b>	---	0
Oil Cleanliness	ISO 4406 (c) >--/17/13		<b>▲ 21/19/14</b>	---	15/12

## FLUID DEGRADATION

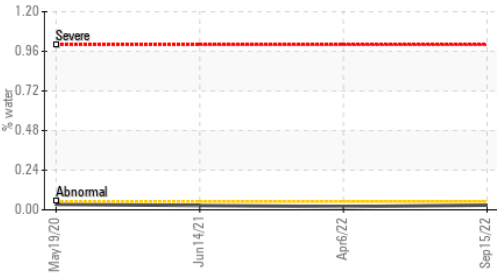
	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	<b>0.39</b>	0.30	0.323

# OIL ANALYSIS REPORT

## ▲ Particle Trend



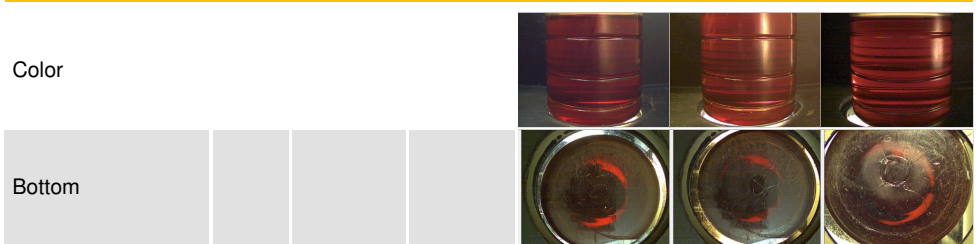
## Water



PARAMETER	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	<b>LIGHT</b>	▲ MODER
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

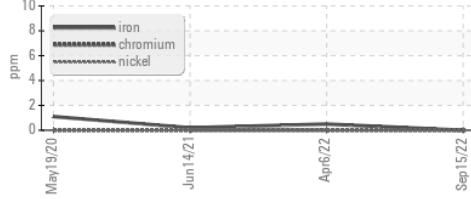
FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445 46	<b>45.4</b>	45.19	44.9

## SAMPLE IMAGES

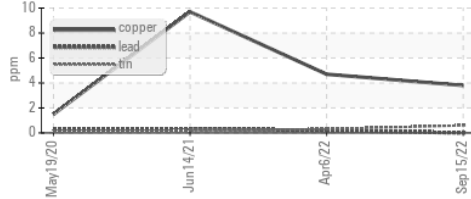


## GRAPHS

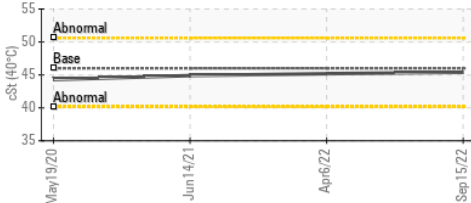
### Ferrous Alloys



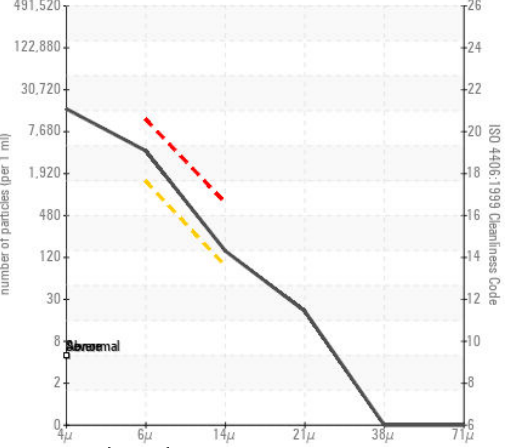
### Non-ferrous Metals



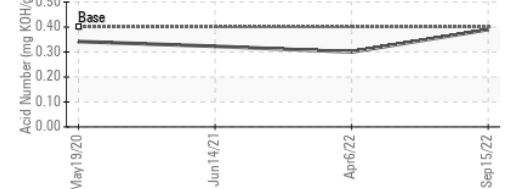
### Viscosity @ 40°C



### ▲ Particle Count



### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCP46300 **Received** : 20 Sep 2022  
**Lab Number** : 05646572 **Diagnosed** : 21 Sep 2022  
**Unique Number** : 10141111 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**AMAZON**  
 8000 TUCKASEEGEE RD  
 CHARLOTTE, NC  
 USA 28214  
 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: