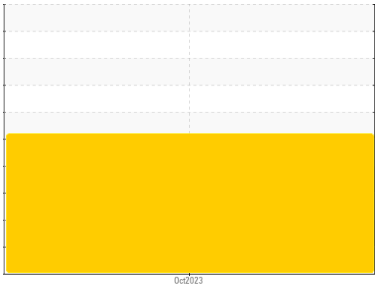
PROBLEM SUMMARY

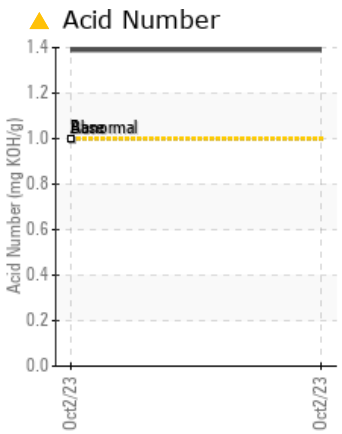
Sample Rating Trend

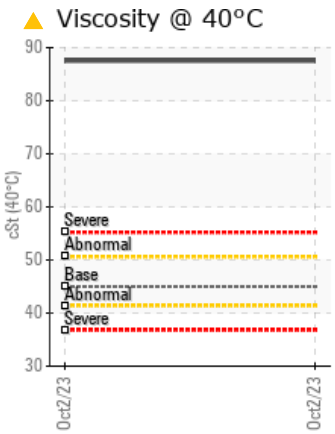


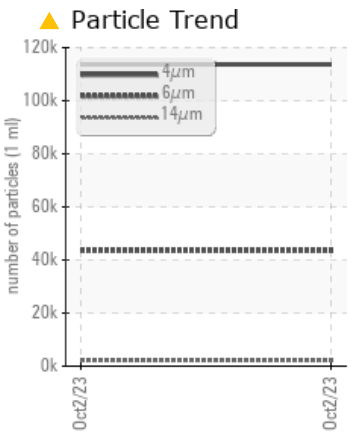
DEGRADATION

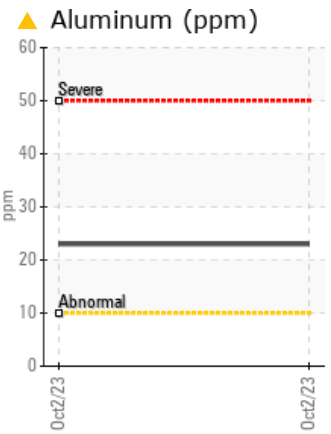
Machine Id
KAESER AS 20 5831886 (S/N 1192)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

COMPONENT CONDITION SUMMARY









RECOMMENDATION

We advise that you check for a possible overheat condition. We recommend that you drain the oil from the component if this has not already been done. The filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	---	---
Aluminum	ppm	ASTM D5185m	>10	▲ **23**	---	---
Particles >6µm		ASTM D7647	>1300	▲ **43550**	---	---
Particles >14µm		ASTM D7647	>80	▲ **2122**	---	---
Particles >21µm		ASTM D7647	>20	▲ **396**	---	---
Particles >38µm		ASTM D7647	>4	▲ **10**	---	---
Particles >71µm		ASTM D7647	>3	▲ **2**	---	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ **24/23/18**	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	▲ **1.39**	---	---
Debris	scalar	*Visual	NONE	▲ **MODER**	---	---
Visc @ 40°C	cSt	ASTM D445	45	▲ **87.55**	---	---

Customer Id: SABSALCA
Sample No.: KCPA006142
Lab Number: 05978946
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

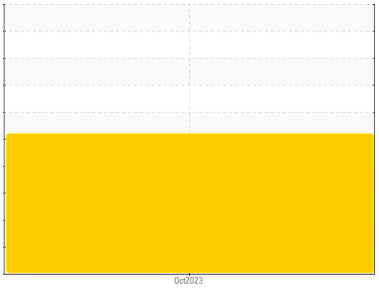
Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil from the component if this has not already been done.
Check For Overheating	---	---	?	We advise that you check for a possible overheat condition.

HISTORICAL DIAGNOSIS

KAESER COMPRESSORS
Built for a lifetime.

OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION

Machine Id
KAESER AS 20 5831886 (S/N 1192)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation
We advise that you check for a possible overheat condition. We recommend that you drain the oil from the component if this has not already been done. The filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition.

Wear
The aluminum level is abnormal. All other component wear rates are normal.

Contamination
There is a high amount of particulates present in the oil. Moderate concentration of visible dirt/debris present in the oil.

Fluid Condition
The oil viscosity is higher than normal. The AN level is at the top-end of the recommended limit.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KCPA006142**	---	---
Sample Date		Client Info		**02 Oct 2023**	---	---
Machine Age	hrs	Client Info		**40548**	---	---
Oil Age	hrs	Client Info		**0**	---	---
Oil Changed		Client Info		**N/A**	---	---
Sample Status				**ABNORMAL**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**16**	---	---
Chromium	ppm	ASTM D5185m	>10	**0**	---	---
Nickel	ppm	ASTM D5185m	>3	**0**	---	---
Titanium	ppm	ASTM D5185m	>3	**0**	---	---
Silver	ppm	ASTM D5185m	>2	**0**	---	---
Aluminum	ppm	ASTM D5185m	>10	▲ **23**	---	---
Lead	ppm	ASTM D5185m	>10	**0**	---	---
Copper	ppm	ASTM D5185m	>50	**21**	---	---
Tin	ppm	ASTM D5185m	>10	**<1**	---	---
Vanadium	ppm	ASTM D5185m		**0**	---	---
Cadmium	ppm	ASTM D5185m		**0**	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**5**	---	---
Barium	ppm	ASTM D5185m	90	**0**	---	---
Molybdenum	ppm	ASTM D5185m	0	**0**	---	---
Manganese	ppm	ASTM D5185m		**<1**	---	---
Magnesium	ppm	ASTM D5185m	100	**1**	---	---
Calcium	ppm	ASTM D5185m	0	**3**	---	---
Phosphorus	ppm	ASTM D5185m	0	**62**	---	---
Zinc	ppm	ASTM D5185m	0	**19**	---	---
Sulfur	ppm	ASTM D5185m	23500	**759**	---	---

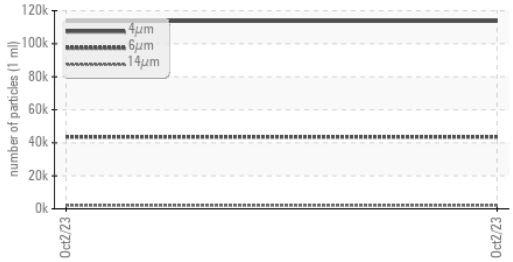
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**6**	---	---
Sodium	ppm	ASTM D5185m		**10**	---	---
Potassium	ppm	ASTM D5185m	>20	**2**	---	---
Water	%	ASTM D6304	>0.05	**0.048**	---	---
ppm Water	ppm	ASTM D6304	>500	**485.6**	---	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**113680**	---	---
Particles >6µm		ASTM D7647	>1300	▲ **43550**	---	---
Particles >14µm		ASTM D7647	>80	▲ **2122**	---	---
Particles >21µm		ASTM D7647	>20	▲ **396**	---	---
Particles >38µm		ASTM D7647	>4	▲ **10**	---	---
Particles >71µm		ASTM D7647	>3	▲ **2**	---	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ **24/23/18**	---	---

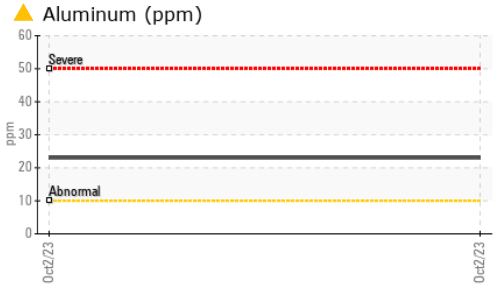
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	▲ **1.39**	---	---

OIL ANALYSIS REPORT

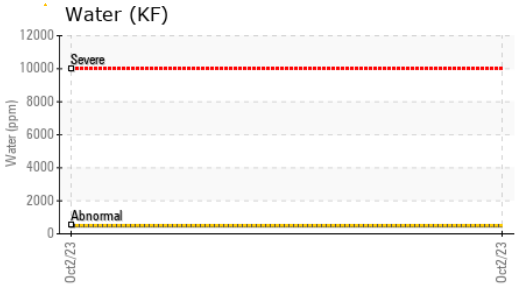
Particle Trend



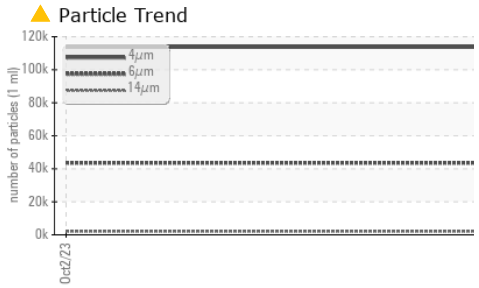
Aluminum (ppm)



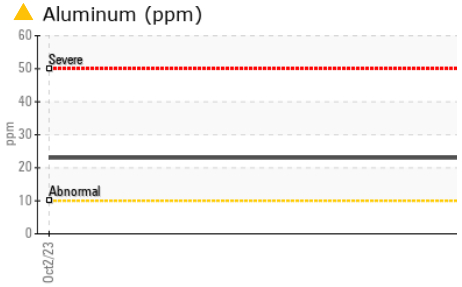
Water (KF)



Particle Trend



Aluminum (ppm)



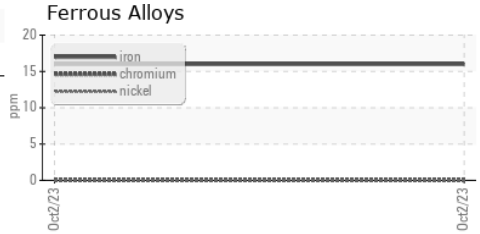
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	---	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	---	---
Precipitate	scalar	*Visual	NONE	**NONE**	---	---
Silt	scalar	*Visual	NONE	**NONE**	---	---
Debris	scalar	*Visual	NONE	▲ **MODER**	---	---
Sand/Dirt	scalar	*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	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	▲ **87.55**	---	---

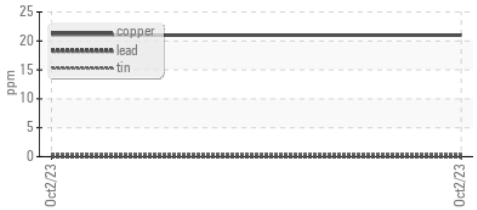
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				*no image*	*no image*
Bottom				*no image*	*no image*

GRAPHS

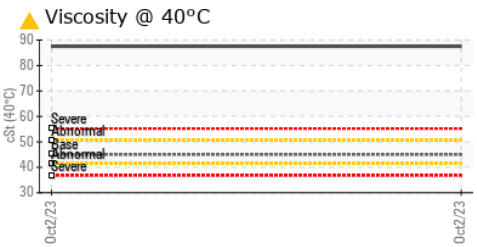
Ferrous Alloys



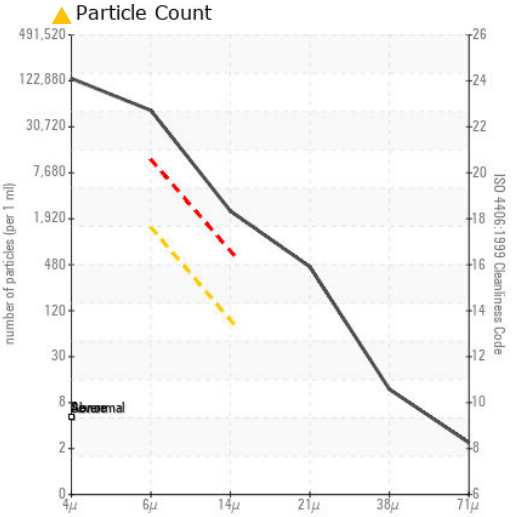
Non-ferrous Metals



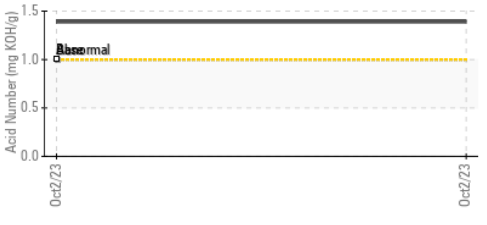
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA006142 **Received** : 13 Oct 2023
Lab Number : 05978946 **Diagnosed** : 19 Oct 2023
Unique Number : 10696241 **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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