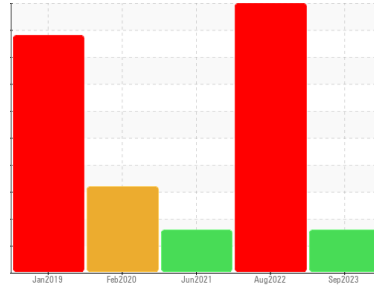




# PROBLEM SUMMARY

Sample Rating Trend



**WATER**



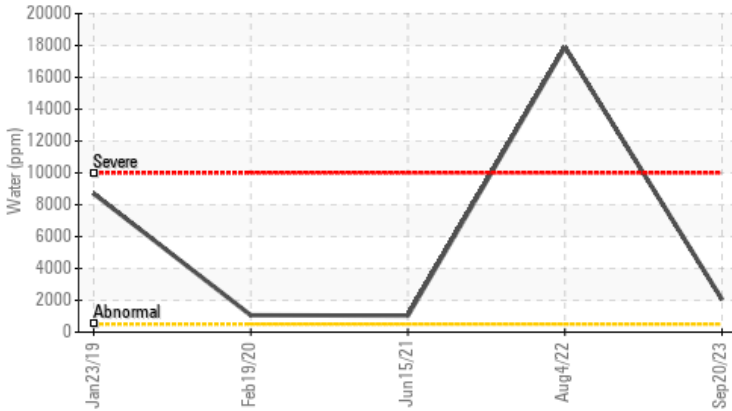
Machine Id  
**KAESER SM 10 5059156 (S/N 1028)**

Component  
**Compressor**

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

## COMPONENT CONDITION SUMMARY

▲ Water (KF)



## RECOMMENDATION

The filter change at the time of sampling has been noted. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				<b>ABNORMAL</b>	SEVERE	ABNORMAL
Water	%	ASTM D6304	>0.05	▲ <b>0.205</b>	● 1.79	▲ 0.103
ppm Water	ppm	ASTM D6304	>500	▲ <b>2050</b>	● 17900	▲ 1035.3

Customer Id: SHEBURN  
 Sample No.: KCPA000886  
 Lab Number: 05964191  
 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

*There are no recommended actions for this sample.*

## HISTORICAL DIAGNOSIS

### 04 Aug 2022 Diag: Jonathan Hester

WATER



Oil and filter change at the time of sampling has been noted. We recommend an early resample in 500 hours to monitor this condition. All component wear rates are normal. There is a moderate amount of particulates present in the oil. Excessive free water present. There is a high concentration of water present in the oil. The AN level is acceptable for this fluid.

view report



### 15 Jun 2021 Diag: Angela Borella

WATER



We advise that you shut down the unit and follow the water drain-off procedure for this component. The filter change at the time of sampling has been noted. We recommend an early resample in 500 hour to monitor this condition. All component wear rates are normal. There is a light concentration of water present in the oil. 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 Feb 2020 Diag: Angela Borella

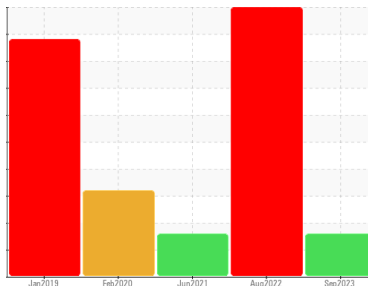
WATER



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. 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





Machine Id  
**KAESER SM 10 5059156 (S/N 1028)**

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

## DIAGNOSIS

### Recommendation

The filter change at the time of sampling has been noted. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

### Wear

All component wear rates are normal.

### Contamination

There is a light concentration of water present 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 INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			<b>KCPA000886</b>	KCP50221	KCP36643
Sample Date	Client Info			<b>20 Sep 2023</b>	04 Aug 2022	15 Jun 2021
Machine Age	hrs	Client Info		<b>23327</b>	18506	18472
Oil Age	hrs	Client Info		<b>0</b>	100	1000
Oil Changed	Client Info			<b>N/A</b>	Changed	Not Chngd
Sample Status				<b>ABNORMAL</b>	SEVERE	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	<b>1</b>	4	1
Chromium	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Nickel	ppm	ASTM D5185m	>3	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185m	>10	<b>0</b>	7	0
Lead	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
Copper	ppm	ASTM D5185m	>50	<b>9</b>	4	<1
Tin	ppm	ASTM D5185m	>10	<b>0</b>	<1	0
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

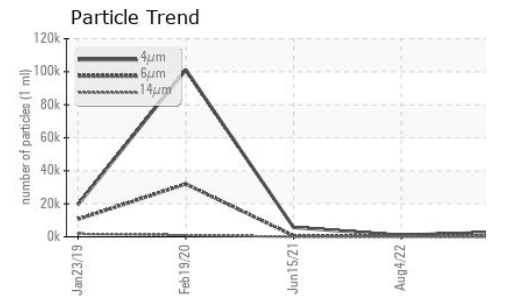
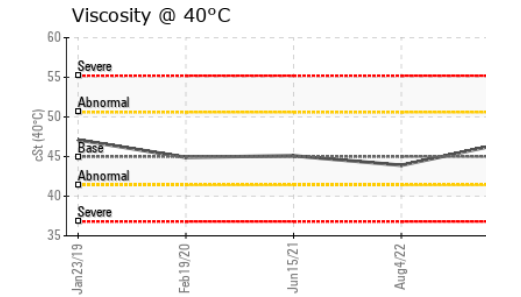
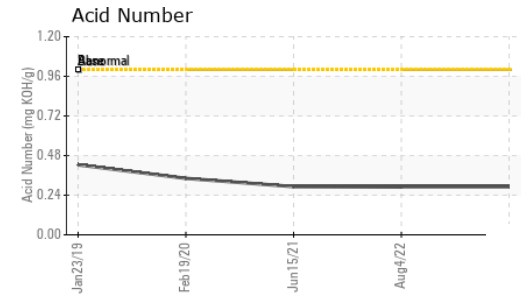
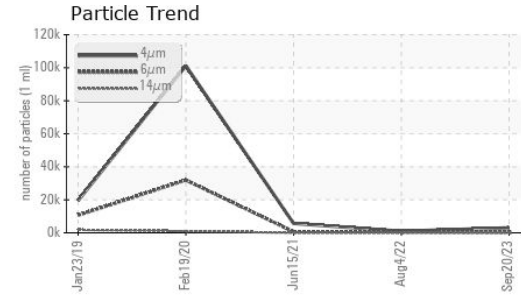
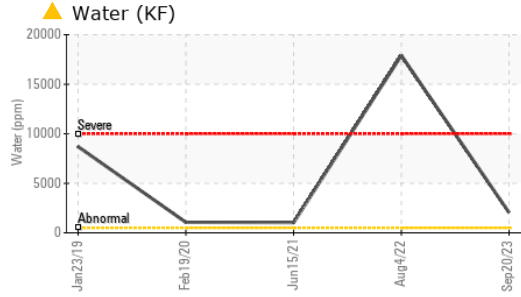
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Barium	ppm	ASTM D5185m	90	<b>0</b>	11	60
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	100	<b>24</b>	21	68
Calcium	ppm	ASTM D5185m	0	<b>1</b>	<1	1
Phosphorus	ppm	ASTM D5185m	0	<b>1</b>	6	3
Zinc	ppm	ASTM D5185m	0	<b>121</b>	28	0
Sulfur	ppm	ASTM D5185m	23500	<b>19069</b>	16987	18216

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	<b>&lt;1</b>	2	0
Sodium	ppm	ASTM D5185m		<b>38</b>	1	2
Potassium	ppm	ASTM D5185m	>20	<b>9</b>	2	0
Water	%	ASTM D6304	>0.05	<b>▲ 0.205</b>	1.79	▲ 0.103
ppm Water	ppm	ASTM D6304	>500	<b>▲ 2050</b>	17900	▲ 1035.3

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		<b>3048</b>	959	5695
Particles >6µm		ASTM D7647	>1300	<b>414</b>	522	642
Particles >14µm		ASTM D7647	>80	<b>28</b>	▲ 89	16
Particles >21µm		ASTM D7647	>20	<b>13</b>	▲ 30	3
Particles >38µm		ASTM D7647	>4	<b>1</b>	▲ 5	0
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	<b>19/16/12</b>	▲ 17/16/14	17/11

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.29</b>	0.29	0.292

# OIL ANALYSIS REPORT

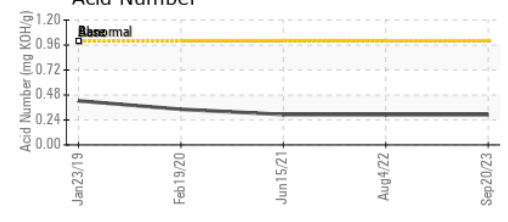
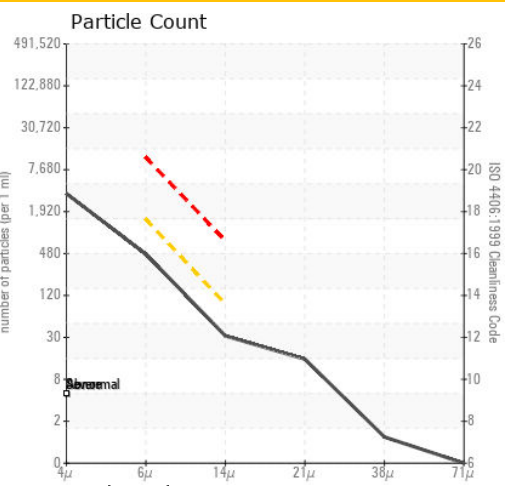
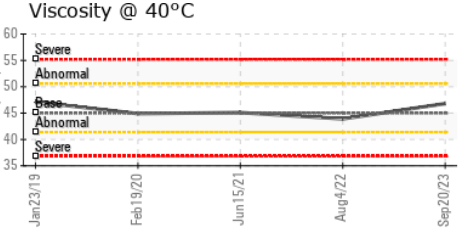
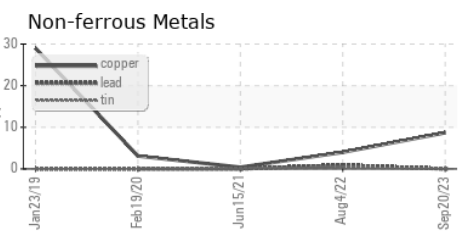
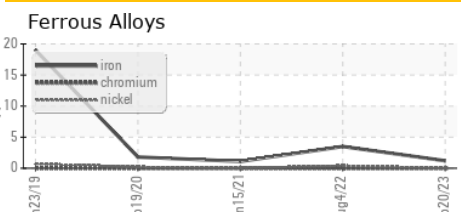


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	VLITE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	HAZY	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	0.2%	0.2%	NEG
Free Water	scalar	*Visual	NEG	>10%	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D445	45	46.8	43.9	45.1

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA000886 **Received** : 28 Sep 2023  
**Lab Number** : 05964191 **Diagnosed** : 04 Oct 2023  
**Unique Number** : 10670742 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

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 \* - 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)