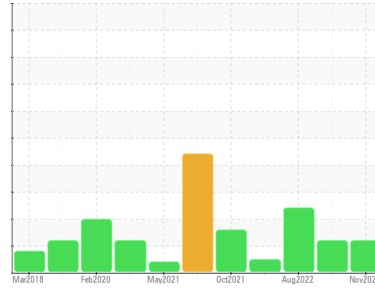




# PROBLEM SUMMARY

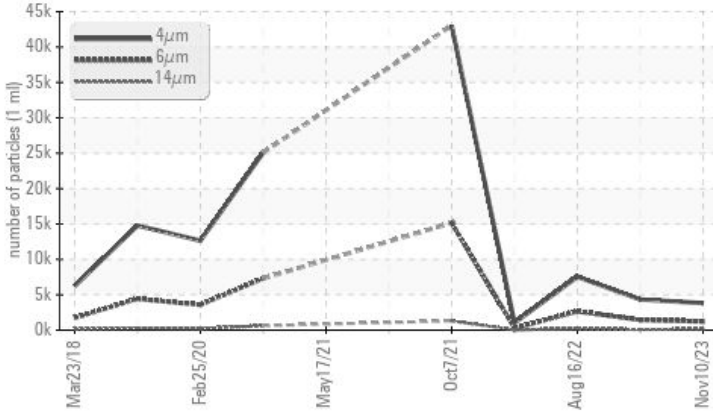
Sample Rating Trend



Machine Id  
**KAESER SM 10 5399168 (S/N 1752)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- QTS)**

## COMPONENT CONDITION SUMMARY

▲ Particle Trend



## RECOMMENDATION

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

## PROBLEMATIC TEST RESULTS

Sample Status			ATTENTION	ATTENTION	ABNORMAL
Particles >14µm	ASTM D7647	>80	▲ 132	▲ 82	▲ 220
Particles >21µm	ASTM D7647	>20	▲ 44	13	▲ 34
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 19/17/14	▲ 19/18/14	▲ 20/19/15

Customer Id: FEDTWI  
 Sample No.: KC124778  
 Lab Number: 06012405  
 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](mailto:dougb@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

### 02 May 2023 Diag: Don Baldrige

ISO



Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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



### 16 Aug 2022 Diag: Don Baldrige

WEAR



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. An increase in the copper level is noted. All other component wear rates are normal. There is a high 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



### 08 Apr 2022 Diag: Don Baldrige

NORMAL



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. 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.

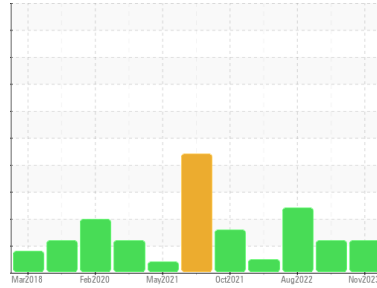
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id  
**KAESER SM 10 5399168 (S/N 1752)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- QTS)**

## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. The 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 moderate 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	history1	history2
Sample Number	Client Info	<b>KC124778</b>	KC109304	KC104902
Sample Date	Client Info	<b>10 Nov 2023</b>	02 May 2023	16 Aug 2022
Machine Age	hrs	<b>24272</b>	21969	21325
Oil Age	hrs	<b>0</b>	644	5328
Oil Changed	Client Info	<b>N/A</b>	Changed	Changed
Sample Status		<b>ATTENTION</b>	ATTENTION	ABNORMAL

## WEAR METALS

method	limit/base	current	history1	history2
Iron ppm	ASTM D5185m >50	<b>0</b>	0	0
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>0</b>	0	0
Lead ppm	ASTM D5185m >10	<b>0</b>	0	0
Copper ppm	ASTM D5185m >50	<b>4</b>	5	▲ 22
Tin ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	<1
Vanadium ppm	ASTM D5185m	<b>&lt;1</b>	0	0
Cadmium ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron ppm	ASTM D5185m	<b>0</b>	0	<1
Barium ppm	ASTM D5185m 90	<b>0</b>	37	0
Molybdenum ppm	ASTM D5185m	<b>0</b>	0	0
Manganese ppm	ASTM D5185m	<b>0</b>	0	0
Magnesium ppm	ASTM D5185m 90	<b>33</b>	69	9
Calcium ppm	ASTM D5185m 2	<b>0</b>	2	0
Phosphorus ppm	ASTM D5185m	<b>0</b>	3	0
Zinc ppm	ASTM D5185m	<b>5</b>	12	12

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon ppm	ASTM D5185m >25	<b>6</b>	2	4
Sodium ppm	ASTM D5185m	<b>18</b>	14	2
Potassium ppm	ASTM D5185m >20	<b>1</b>	4	0
Water %	ASTM D6304 >0.05	<b>0.012</b>	0.012	0.008
ppm Water	ASTM D6304 >500	<b>125.8</b>	121.2	88.6

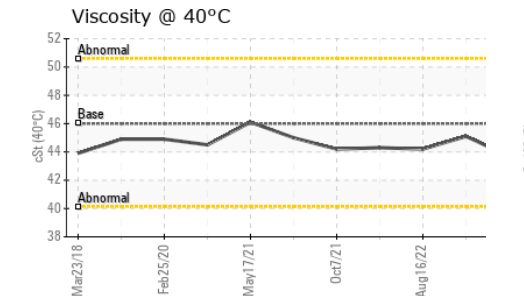
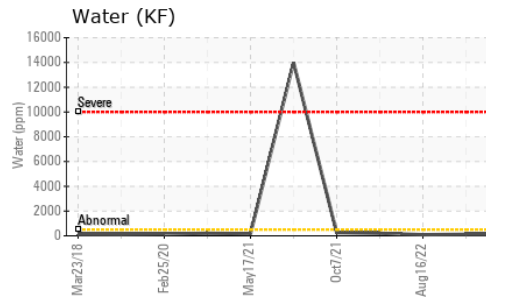
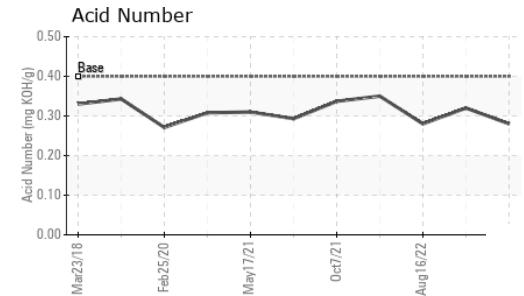
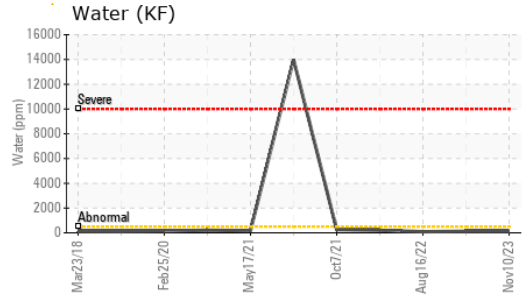
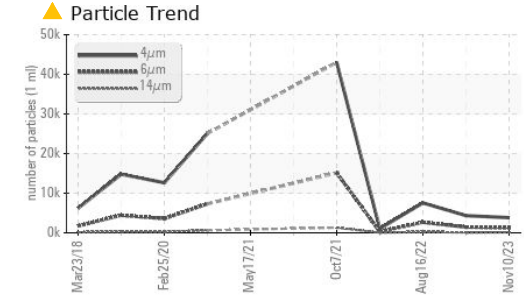
## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	<b>3821</b>	4334	7553
Particles >6µm	ASTM D7647 >1300	<b>1226</b>	▲ 1447	▲ 2660
Particles >14µm	ASTM D7647 >80	▲ <b>132</b>	▲ 82	▲ 220
Particles >21µm	ASTM D7647 >20	▲ <b>44</b>	13	▲ 34
Particles >38µm	ASTM D7647 >4	<b>2</b>	1	2
Particles >71µm	ASTM D7647 >3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >--/17/13	▲ <b>19/17/14</b>	▲ 19/18/14	▲ 20/19/15

## FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g	ASTM D8045 0.4	<b>0.28</b>	0.32	0.28

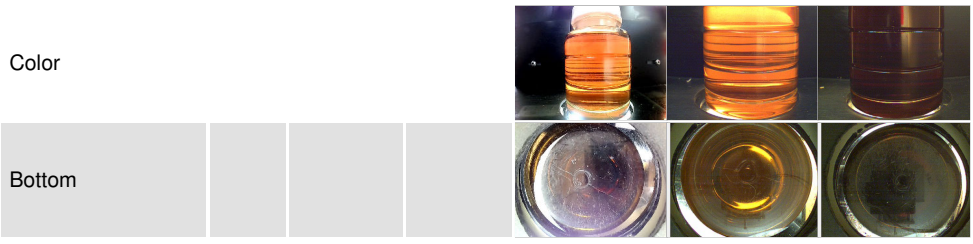
# OIL ANALYSIS REPORT



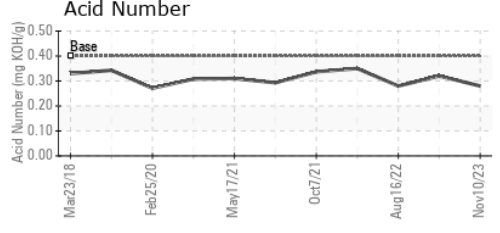
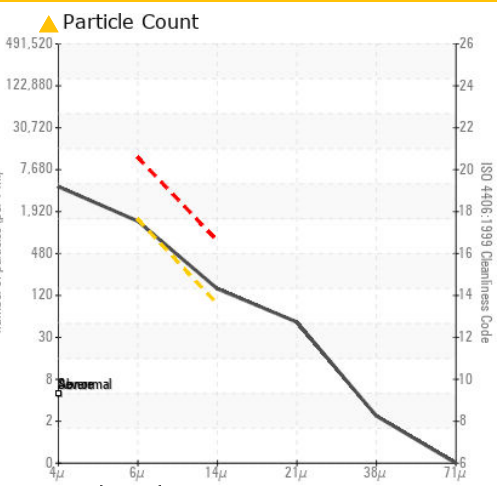
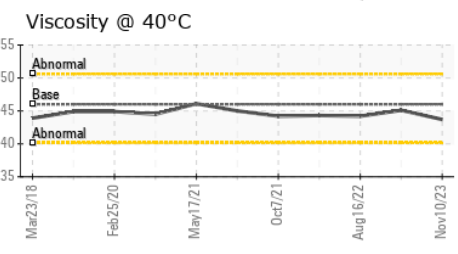
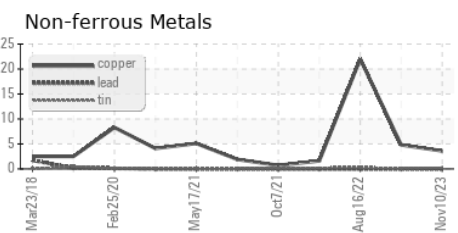
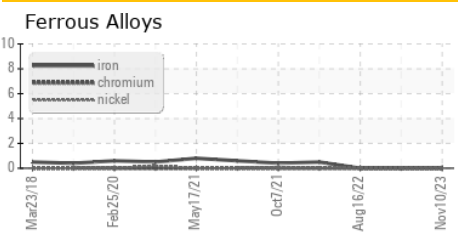
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	history1	history2
Visc @ 40°C	cSt	ASTM D445 46	43.7	45.1	44.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC124778 **Received** : 20 Nov 2023  
**Lab Number** : 06012405 **Diagnosed** : 21 Nov 2023  
**Unique Number** : 10751549 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2

**FEDEX**  
 2050 E AURORA RD  
 TWINSBURG, OH  
 US 44087  
 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: