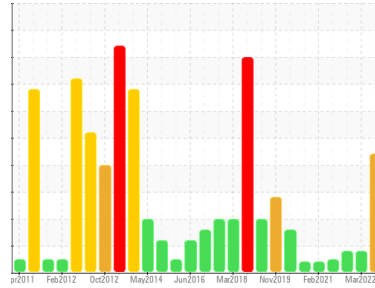


# PROBLEM SUMMARY

Sample Rating Trend



**WATER**



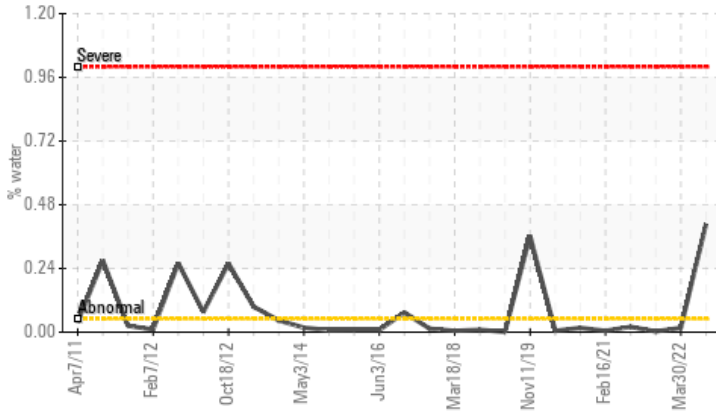
Machine Id  
**KAESER ASD 40 3871097 (S/N 1341)**

Component  
**Compressor**

Fluid  
**KAESER SIGMA (OEM) S-460 (--- QTS)**

## COMPONENT CONDITION SUMMARY

### ▲ Water



## RECOMMENDATION

We recommend you service the filters on this component. We were unable to perform a particle count due to a high concentration of particles present in this sample. 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>	ATTENTION	ATTENTION
Water	%	ASTM D6304	>0.05	▲ <b>0.407</b>	0.016	0.003
ppm Water	ppm	ASTM D6304	>500	▲ <b>4070</b>	165.8	31.5
Debris	scalar	*Visual	NONE	▲ <b>MODER</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	▲ <b>HAZY</b>	NORML	NORML
Free Water	scalar	*Visual		▲ <b>1.0</b>	NEG	NEG

Customer Id: ATIOAK  
Sample No.: KC91349  
Lab Number: 05646578  
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 Filter	---	---	?	We recommend you service the filters on this component.
Alert	---	---	?	We were unable to perform a particle count due to a high concentration of particles present in this sample.

HISTORICAL DIAGNOSIS

**30 Mar 2022 Diag: Doug Bogart**

ISO



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. All component wear rates are normal. There is a moderate amount of silt (particulates < 14 microns in size) present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



**23 Dec 2021 Diag: Angela Borella**

ISO



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. 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



**17 Jun 2021 Diag: Angela Borella**

NORMAL

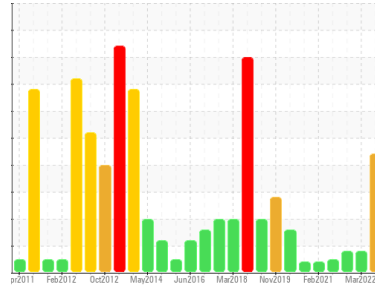


The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Machine Id  
**KAESER ASD 40 3871097 (S/N 1341)**  
Component  
**Compressor**  
Fluid  
**KAESER SIGMA (OEM) S-460 (--- QTS)**



**DIAGNOSIS**

**Recommendation**

We recommend you service the filters on this component. We were unable to perform a particle count due to a high concentration of particles present in this sample. 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**

Appearance is hazy. Free water present. There is a moderate concentration of water present in the oil. Moderate concentration of visible dirt/debris 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>KC91349</b>	KC91325	KC95285
Sample Date			<b>13 Sep 2022</b>	30 Mar 2022	23 Dec 2021
Machine Age	hrs		<b>54988</b>	52921	51597
Oil Age	hrs		<b>3000</b>	2000	4000
Oil Changed			<b>Not Chngd</b>	Not Chngd	Changed
Sample Status			<b>ABNORMAL</b>	ATTENTION	ATTENTION

**WEAR METALS**

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >50	<1	<1	0
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m >3	0	0	0
Titanium	ppm	ASTM D5185m >3	0	0	0
Silver	ppm	ASTM D5185m >2	0	<1	0
Aluminum	ppm	ASTM D5185m >10	0	<1	0
Lead	ppm	ASTM D5185m >10	0	0	0
Copper	ppm	ASTM D5185m >50	14	3	13
Tin	ppm	ASTM D5185m >10	<1	<1	0
Antimony	ppm	ASTM D5185m	---	---	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

**ADDITIVES**

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m	0	0	0
Barium	ppm	ASTM D5185m 90	0	28	0
Molybdenum	ppm	ASTM D5185m	0	0	0
Manganese	ppm	ASTM D5185m	0	<1	0
Magnesium	ppm	ASTM D5185m 90	0	49	0
Calcium	ppm	ASTM D5185m 2	0	1	0
Phosphorus	ppm	ASTM D5185m	1	2	2
Zinc	ppm	ASTM D5185m	0	7	0

**CONTAMINANTS**

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	<1	<1	0
Sodium	ppm	ASTM D5185m	0	21	<1
Potassium	ppm	ASTM D5185m >20	0	4	0
Water	%	ASTM D6304 >0.05	<b>▲ 0.407</b>	0.016	0.003
ppm Water	ppm	ASTM D6304 >500	<b>▲ 4070</b>	165.8	31.5

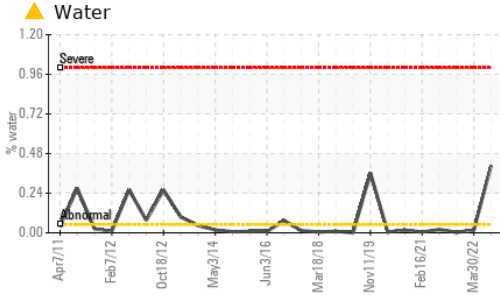
**FLUID CLEANLINESS**

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		---	14491	6822
Particles >6µm	ASTM D7647	>1300	---	▲ 2254	▲ 1586
Particles >14µm	ASTM D7647	>80	---	▲ 93	▲ 95
Particles >21µm	ASTM D7647	>20	---	23	23
Particles >38µm	ASTM D7647	>4	---	2	1
Particles >71µm	ASTM D7647	>3	---	0	0
Oil Cleanliness	ISO 4406 (c)	>--/17/13	---	▲ 18/14	▲ 18/14

**FLUID DEGRADATION**

	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	<b>0.35</b>	0.36	0.409

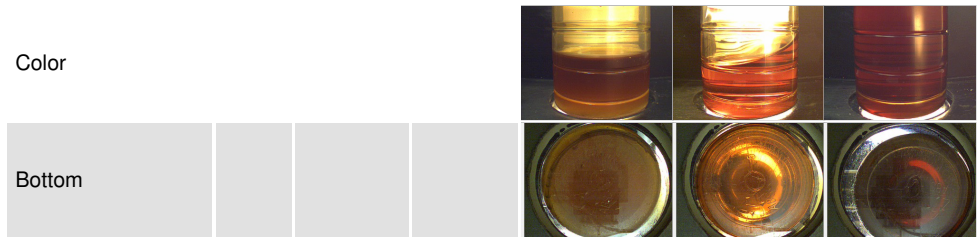
# OIL ANALYSIS REPORT



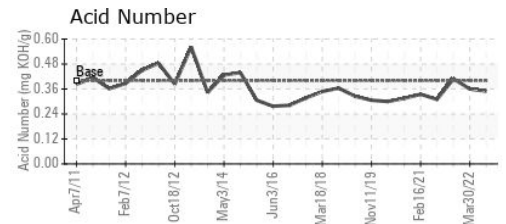
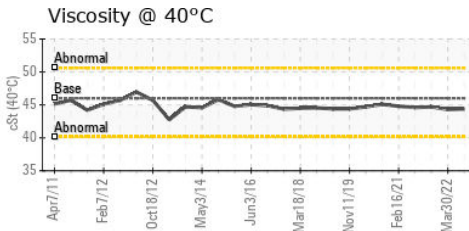
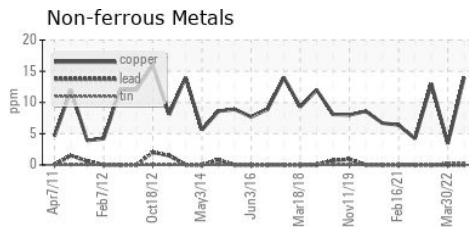
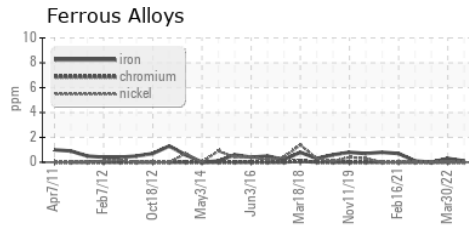
VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	▲ MODER	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	▲ HAZY	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	0.2%	NEG
Free Water	scalar	*Visual		▲ 1.0	NEG

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	46	44.4	44.3

SAMPLE IMAGES	method	limit/base	current	history 1	history 2
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## GRAPHS



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KC91349 **Received** : 20 Sep 2022  
**Lab Number** : 05646578 **Diagnosed** : 21 Sep 2022  
**Unique Number** : 10141117 **Diagnostician** : Jonathan Hester  
**Test Package** : IND 2

**ATI POWDER METALS**  
 1001 ROBB HILL RD  
 OAKDALE, PA  
 USA 15077  
 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: