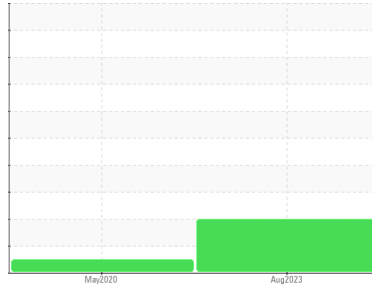




# PROBLEM SUMMARY

Sample Rating Trend

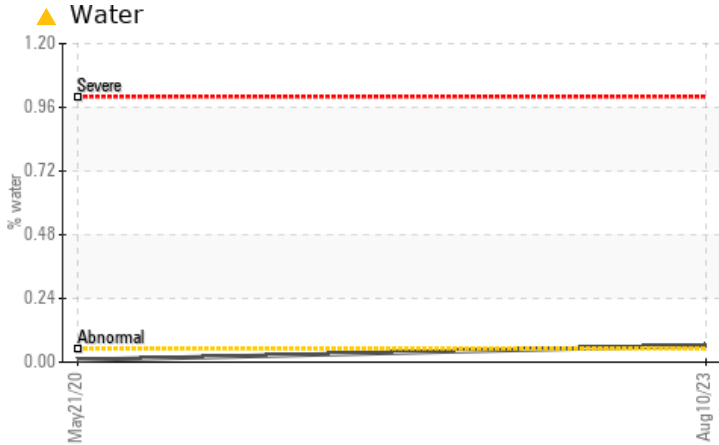


**WATER**



Machine Id  
**6666890 (S/N 1106)**  
 Component  
**Compressor**  
 Fluid  
**KAESER SIGMA (OEM) S-460 (--- GAL)**

## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in this sample. We recommend an early resample in 500 hours to monitor this condition.

## PROBLEMATIC TEST RESULTS

Sample Status				<b>ABNORMAL</b>	NORMAL	---
Water	%	ASTM D6304	>0.05	<b>▲ 0.063</b>	0.008	---
ppm Water	ppm	ASTM D6304	>500	<b>▲ 630</b>	89.4	---
Debris	scalar	*Visual	NONE	<b>▲ MODER</b>	NONE	---
Emulsified Water	scalar	*Visual	>0.05	<b>▲ 0.2%</b>	NEG	---

Customer Id: SONLAG  
 Sample No.: KCPA004937  
 Lab Number: 05938283  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Don Baldrige +1  
[don.b505@comcast.net](mailto:don.b505@comcast.net)

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.
Alert	---	---	?	We were unable to perform a particle count due to a high concentration of particles present in this sample.

## HISTORICAL DIAGNOSIS

### 21 May 2020 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.

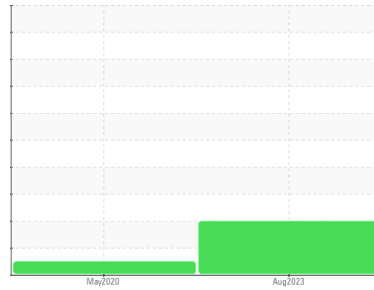
view report





# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Machine Id  
**6666890 (S/N 1106)**

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

## DIAGNOSIS

### ▲ Recommendation

Oil and filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in this sample. We recommend an early resample in 500 hours to monitor this condition.

### Wear

All component wear rates are normal.

### ▲ Contamination

Moderate concentration of visible dirt/debris present in the oil. There is a light concentration of water present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>KCPA004937</b>	KC72800	---
Sample Date	Client Info		<b>10 Aug 2023</b>	21 May 2020	---
Machine Age	hrs	Client Info	<b>35369</b>	10559	---
Oil Age	hrs	Client Info	<b>0</b>	3924	---
Oil Changed	Client Info		<b>Changed</b>	Changed	---
Sample Status			<b>ABNORMAL</b>	NORMAL	---

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<b>0</b>	<1	---
Chromium	ppm	ASTM D5185m >10	<b>0</b>	0	---
Nickel	ppm	ASTM D5185m >3	<b>0</b>	0	---
Titanium	ppm	ASTM D5185m >3	<b>0</b>	0	---
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	---
Aluminum	ppm	ASTM D5185m >10	<b>&lt;1</b>	<1	---
Lead	ppm	ASTM D5185m >10	<b>0</b>	0	---
Copper	ppm	ASTM D5185m >50	<b>34</b>	10	---
Tin	ppm	ASTM D5185m >10	<b>0</b>	<1	---
Antimony	ppm	ASTM D5185m	<b>---</b>	0	---
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	---
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	---

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	<b>0</b>	<1	---
Barium	ppm	ASTM D5185m 90	<b>3</b>	0	---
Molybdenum	ppm	ASTM D5185m	<b>0</b>	<1	---
Manganese	ppm	ASTM D5185m	<b>0</b>	0	---
Magnesium	ppm	ASTM D5185m 90	<b>1</b>	2	---
Calcium	ppm	ASTM D5185m 2	<b>0</b>	<1	---
Phosphorus	ppm	ASTM D5185m	<b>0</b>	23	---
Zinc	ppm	ASTM D5185m	<b>17</b>	82	---
Sulfur	ppm	ASTM D5185m	<b>14593</b>	16300	---

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	<b>0</b>	1	---
Sodium	ppm	ASTM D5185m	<b>0</b>	1	---
Potassium	ppm	ASTM D5185m >20	<b>&lt;1</b>	0	---
Water	%	ASTM D6304 >0.05	<b>▲ 0.063</b>	0.008	---
ppm Water	ppm	ASTM D6304 >500	<b>▲ 630</b>	89.4	---

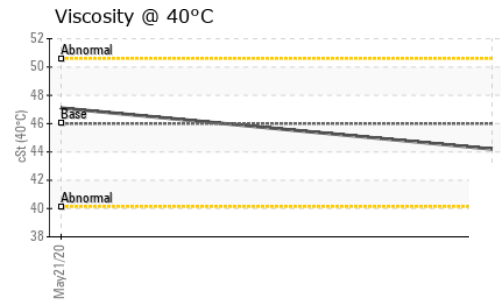
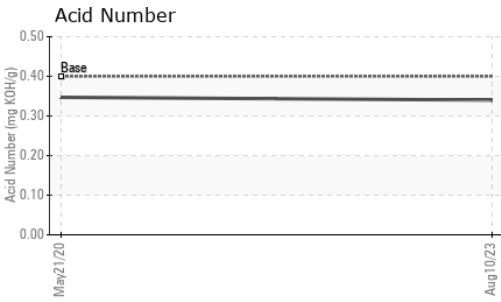
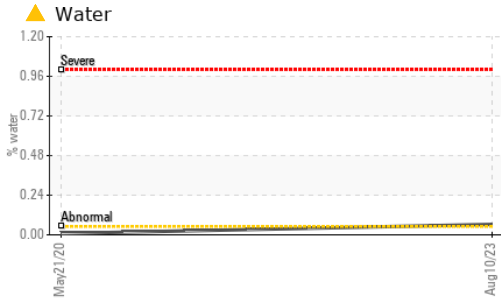
## FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		<b>---</b>	1743	---
Particles >6µm	ASTM D7647 >1300		<b>---</b>	370	---
Particles >14µm	ASTM D7647 >80		<b>---</b>	24	---
Particles >21µm	ASTM D7647 >20		<b>---</b>	12	---
Particles >38µm	ASTM D7647 >4		<b>---</b>	0	---
Particles >71µm	ASTM D7647 >3		<b>---</b>	0	---
Oil Cleanliness	ISO 4406 (c) >--/17/13		<b>---</b>	16/12	---

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	<b>0.34</b>	0.347	---

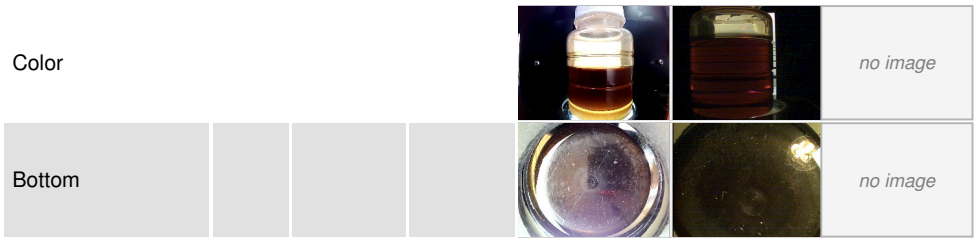
# OIL ANALYSIS REPORT



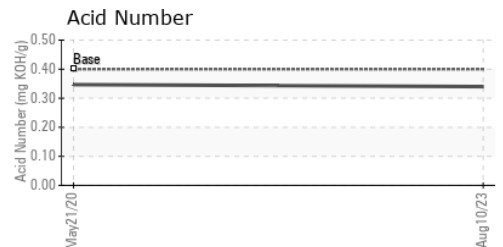
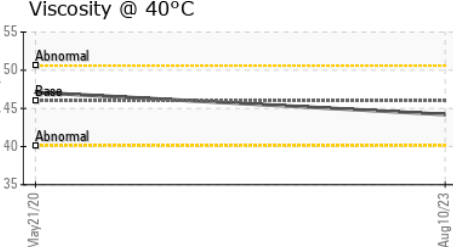
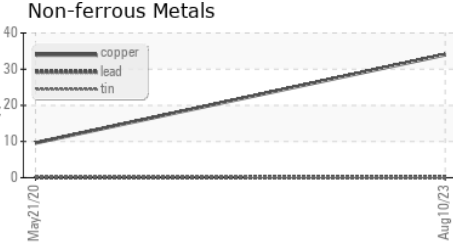
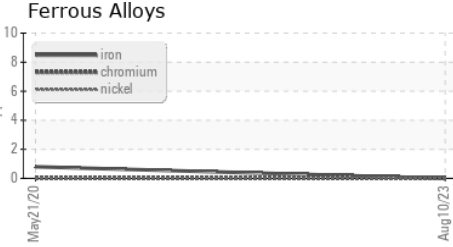
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	▲ MODER	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.05	▲ 0.2%	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	44.2	47.1

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



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KCPA004937 **Received** : 30 Aug 2023  
**Lab Number** : 05938283 **Diagnosed** : 31 Aug 2023  
**Unique Number** : 10628895 **Diagnostician** : Don Baldrige  
**Test Package** : IND 2 ( Additional Tests: KF, PrtCount )

**SONENDO INC**  
 26061 MERIT CIR 102  
 LAGUNA HILLS, CA  
 US 92653  
 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: