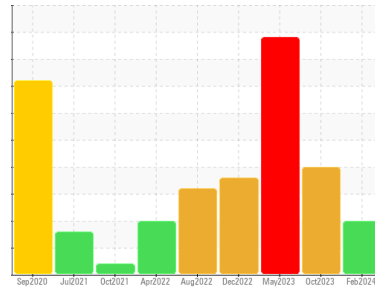


# OIL ANALYSIS REPORT

Sample Rating Trend



**WATER**



Machine Id  
**6953514 (S/N 1148)**

Component  
**Compressor**

Fluid  
**KAESER SIGMA (OEM) S-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. We were unable to perform a particle count due to a high concentration of particles present in this sample.

### 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. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>KC06122322</b>	KC06007752	KC05869493
Sample Date	Client Info	<b>15 Feb 2024</b>	30 Oct 2023	17 May 2023
Machine Age	hrs	<b>24946</b>	22793	20213
Oil Age	hrs	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	ABNORMAL	SEVERE

## WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >50	<b>0</b>	1	2
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>	<1	<1
Silver	ppm	ASTM D5185m >2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >10	<b>0</b>	0	<1
Lead	ppm	ASTM D5185m >10	<b>0</b>	0	0
Copper	ppm	ASTM D5185m >50	<b>8</b>	13	6
Tin	ppm	ASTM D5185m >10	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	<1	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	0
Barium	ppm	ASTM D5185m 90	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	<b>0</b>	0	0
Manganese	ppm	ASTM D5185m	<b>&lt;1</b>	0	<1
Magnesium	ppm	ASTM D5185m 90	<b>3</b>	0	11
Calcium	ppm	ASTM D5185m 2	<b>0</b>	0	0
Phosphorus	ppm	ASTM D5185m	<b>0</b>	0	0
Zinc	ppm	ASTM D5185m	<b>15</b>	0	22

## CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	<b>0</b>	0	0
Sodium	ppm	ASTM D5185m	<b>2</b>	<1	1
Potassium	ppm	ASTM D5185m >20	<b>0</b>	0	<1
Water	%	ASTM D6304 >0.05	<b>▲ 0.224</b>	▲ 0.107	▲ 0.125
ppm Water	ppm	ASTM D6304 >500	<b>▲ 2240</b>	▲ 1070	▲ 1250

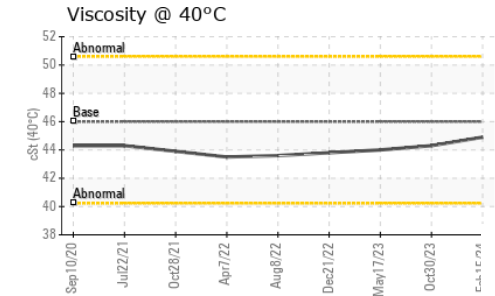
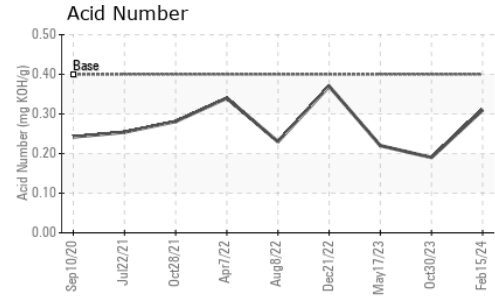
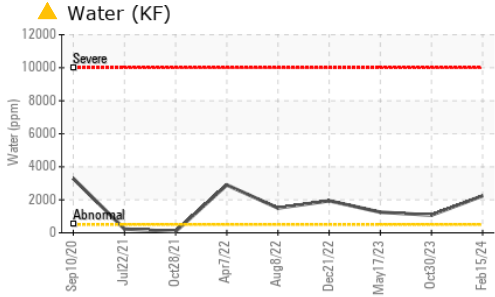
## FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	---	285365	948
Particles >6µm	ASTM D7647 >1300	---	▲ 220697	517
Particles >14µm	ASTM D7647 >80	---	▲ 38193	● 88
Particles >21µm	ASTM D7647 >20	---	▲ 4517	● 30
Particles >38µm	ASTM D7647 >4	---	▲ 36	● 5
Particles >71µm	ASTM D7647 >3	---	▲ 4	0
Oil Cleanliness	ISO 4406 (c) >--/17/13	---	▲ 25/25/22	● 17/16/14

## FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045 0.4	<b>0.31</b>	0.19	0.22

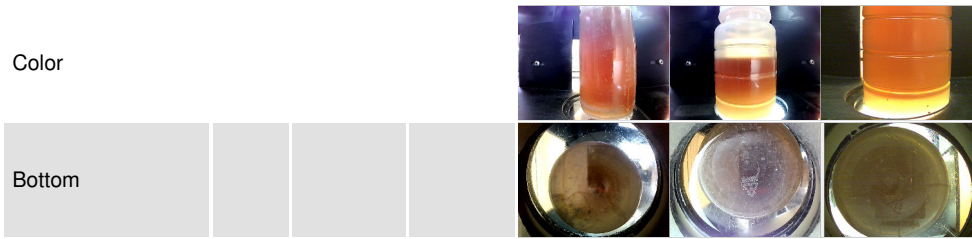
# OIL ANALYSIS REPORT



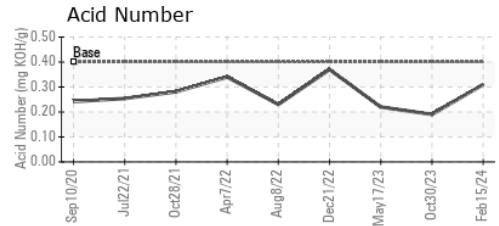
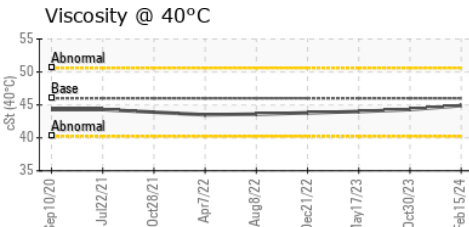
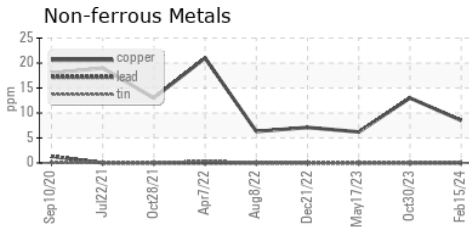
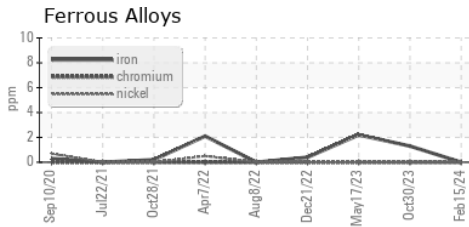
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	▲ MODER	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	● HAZY
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	▲ 0.2%	▲ 0.2%
Free Water	scalar	*Visual		NEG	▲ 10.0

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	44.9	44.3

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.** : KC06122322  
**Lab Number** : 06122322  
**Unique Number** : 10936473  
**Test Package** : IND 2

**Received** : 19 Mar 2024  
**Tested** : 21 Mar 2024  
**Diagnosed** : 21 Mar 2024 - Don Baldrige

**CITY OF ASHVILLE WATER TREATMENT**  
 3374 N FORK LEFT RD  
 BLACK MOUNTAIN, NC  
 US 28711  
 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: