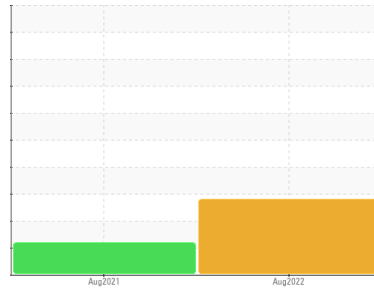


PROBLEM SUMMARY

Sample Rating Trend



WATER

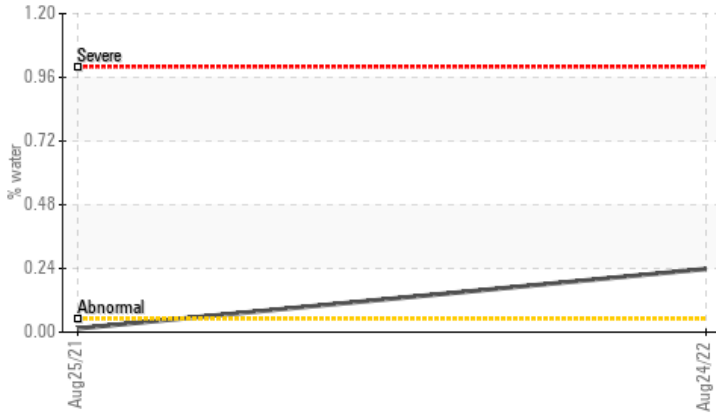


Machine Id
KAESER 3671191

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

COMPONENT CONDITION SUMMARY

▲ Water



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				ABNORMAL	ABNORMAL	---
Water	%	ASTM D6304	>0.05	▲ 0.238	0.014	---
ppm Water	ppm	ASTM D6304	>500	▲ 2380	148.1	---
Debris	scalar	*Visual	NONE	▲ MODER	NONE	---
Appearance	scalar	*Visual	NORML	▲ HAZY	NORML	---
Emulsified Water	scalar	*Visual	>0.05	▲ 0.2%	NEG	---

Customer Id: BRABAX
Sample No.: KCP45524
Lab Number: 05629617
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

To change component or sample information:
Customer Service +1 1-800-237-1369
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

25 Aug 2021 Diag: Jonathan Hester

ISO

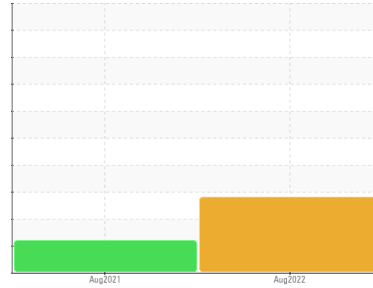


Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Machine Id
KAESER 3671191
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-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 history 1 history 2

Sample Number			KCP45524	KCP37785	---
Sample Date			24 Aug 2022	25 Aug 2021	---
Machine Age	hrs		50617	46799	---
Oil Age	hrs		0	0	---
Oil Changed			Changed	Changed	---
Sample Status			ABNORMAL	ABNORMAL	---

WEAR METALS method limit/base current history 1 history 2

Iron	ppm	ASTM D5185m	>50	2	2	---
Chromium	ppm	ASTM D5185m	>10	0	0	---
Nickel	ppm	ASTM D5185m	>3	0	0	---
Titanium	ppm	ASTM D5185m	>3	0	0	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>10	1	0	---
Lead	ppm	ASTM D5185m	>10	0	0	---
Copper	ppm	ASTM D5185m	>50	11	1	---
Tin	ppm	ASTM D5185m	>10	0	0	---
Antimony	ppm	ASTM D5185m		---	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
Cadmium	ppm	ASTM D5185m		0	0	---

ADDITIVES method limit/base current history 1 history 2

Boron	ppm	ASTM D5185m	0	0	0	---
Barium	ppm	ASTM D5185m	90	4	0	---
Molybdenum	ppm	ASTM D5185m	0	0	0	---
Manganese	ppm	ASTM D5185m		<1	0	---
Magnesium	ppm	ASTM D5185m	100	18	5	---
Calcium	ppm	ASTM D5185m	0	0	0	---
Phosphorus	ppm	ASTM D5185m	0	3	27	---
Zinc	ppm	ASTM D5185m	0	59	35	---
Sulfur	ppm	ASTM D5185m	23500	16284	8199	---

CONTAMINANTS method limit/base current history 1 history 2

Silicon	ppm	ASTM D5185m	>25	0	0	---
Sodium	ppm	ASTM D5185m		8	8	---
Potassium	ppm	ASTM D5185m	>20	0	1	---
Water	%	ASTM D6304	>0.05	▲ 0.238	0.014	---
ppm Water	ppm	ASTM D6304	>500	▲ 2380	148.1	---

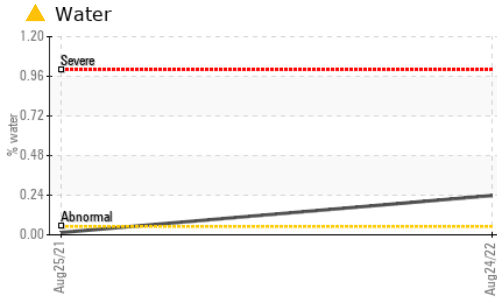
FLUID CLEANLINESS method limit/base current history 1 history 2

Particles >4µm		ASTM D7647		---	17531	---
Particles >6µm		ASTM D7647	>1300	---	▲ 5316	---
Particles >14µm		ASTM D7647	>80	---	▲ 392	---
Particles >21µm		ASTM D7647	>20	---	▲ 59	---
Particles >38µm		ASTM D7647	>4	---	3	---
Particles >71µm		ASTM D7647	>3	---	0	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	---	▲ 20/16	---

FLUID DEGRADATION method limit/base current history 1 history 2

Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.38	0.363	---
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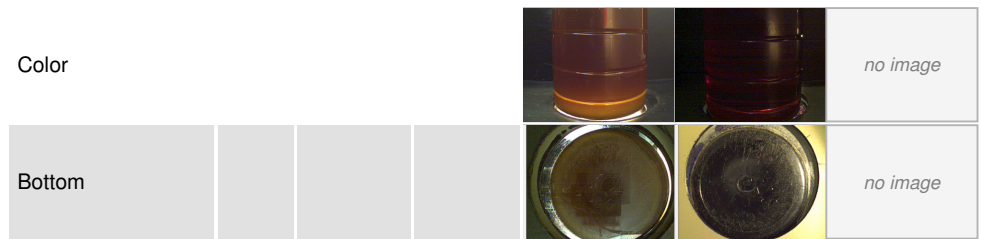
OIL ANALYSIS REPORT



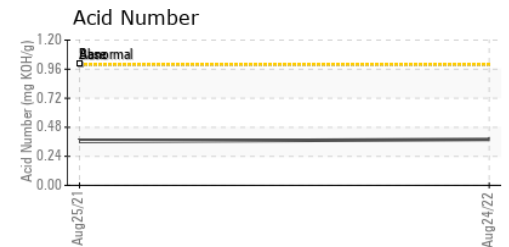
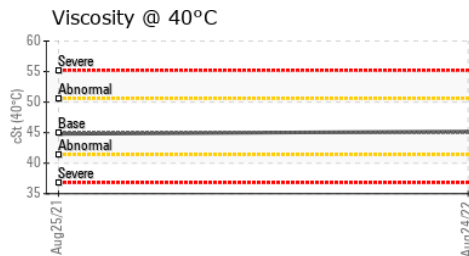
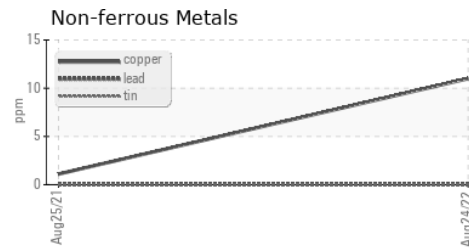
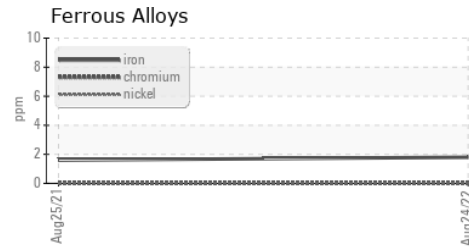
VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar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

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	45	44.8	---

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. : KCP45524 **Received** : 29 Aug 2022
Lab Number : 05629617 **Diagnosed** : 31 Aug 2022
Unique Number : 10114138 **Diagnostician** : Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PrtCount)

BRainerd Public Utilities
 8027 HIGHLAND SCENIC RD
 BAXTER, MN
 USA 56425
 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: