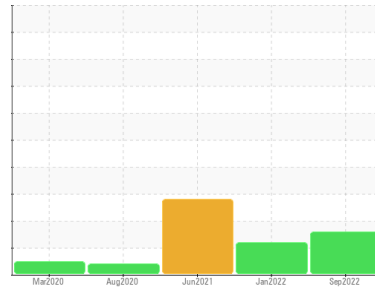


PROBLEM SUMMARY

Sample Rating Trend



ISO



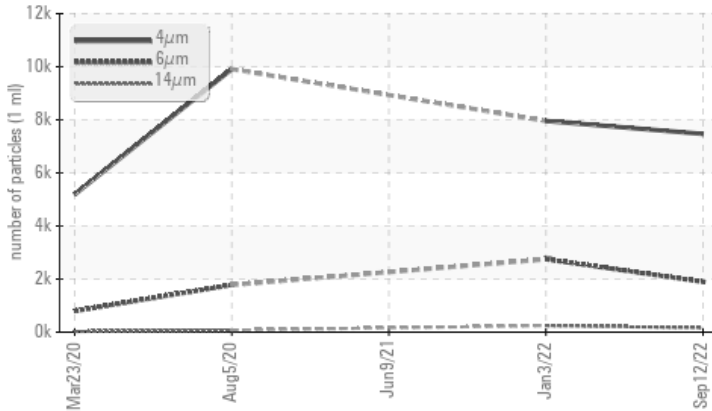
Machine Id
6590388 (S/N 1103)

Component
Compressor

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

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

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.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	ABNORMAL
Particles >6µm	ASTM D7647	>1300	▲ 1895	▲ 2747	---
Particles >14µm	ASTM D7647	>80	▲ 161	▲ 244	---
Particles >21µm	ASTM D7647	>20	▲ 28	▲ 48	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 20/18/15	▲ 19/15	---

Customer Id: TRICLE
Sample No.: KCP49298
Lab Number: 05643061
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

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.

HISTORICAL DIAGNOSIS

03 Jan 2022 Diag: Don Baldrige

ISO



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. 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



09 Jun 2021 Diag: Don Baldrige

WATER



Oil and filter change at the time of sampling has been noted. 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. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. There is a moderate concentration of water present in the oil. The AN level is acceptable for this fluid.

view report



05 Aug 2020 Diag: Angela Borella

ISO

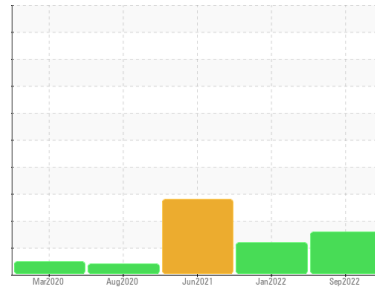


No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a moderate amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Machine Id
6590388 (S/N 1103)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)



DIAGNOSIS

Recommendation

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.

Wear

All component wear rates are normal.

Contamination

There is a high 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	history 1	history 2
Sample Number			KCP49298	KCP38214	KCP35579
Sample Date			12 Sep 2022	03 Jan 2022	09 Jun 2021
Machine Age	hrs		17643	13282	8544
Oil Age	hrs		4361	4738	3642
Oil Changed			Changed	Changed	Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >50	<1	<1	<1
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	<1	0	2
Aluminum	ppm	ASTM D5185m >10	<1	2	0
Lead	ppm	ASTM D5185m >10	0	0	<1
Copper	ppm	ASTM D5185m >50	11	6	7
Tin	ppm	ASTM D5185m >10	0	<1	<1
Antimony	ppm	ASTM D5185m	---	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 0	0	<1	1
Barium	ppm	ASTM D5185m 90	0	0	<1
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	0	0	<1
Magnesium	ppm	ASTM D5185m 100	0	32	12
Calcium	ppm	ASTM D5185m 0	0	3	<1
Phosphorus	ppm	ASTM D5185m 0	3	6	6
Zinc	ppm	ASTM D5185m 0	1	28	40
Sulfur	ppm	ASTM D5185m 23500	17854	16614	17905

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	<1	<1	1
Sodium	ppm	ASTM D5185m	<1	15	7
Potassium	ppm	ASTM D5185m >20	0	7	4
Water	%	ASTM D6304 >0.05	0.012	0.019	▲ 0.423
ppm Water	ppm	ASTM D6304 >500	123.4	193.9	▲ 4230

FLUID CLEANLINESS

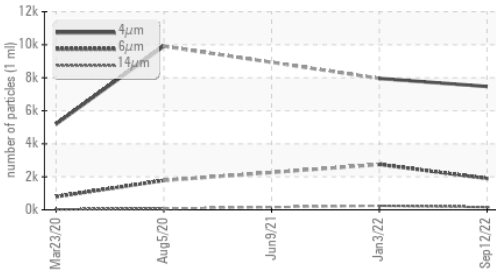
	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		7468	7957	---
Particles >6µm	ASTM D7647	>1300	▲ 1895	▲ 2747	---
Particles >14µm	ASTM D7647	>80	▲ 161	▲ 244	---
Particles >21µm	ASTM D7647	>20	▲ 28	▲ 48	---
Particles >38µm	ASTM D7647	>4	0	3	---
Particles >71µm	ASTM D7647	>3	0	0	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 20/18/15	▲ 19/15	---

FLUID DEGRADATION

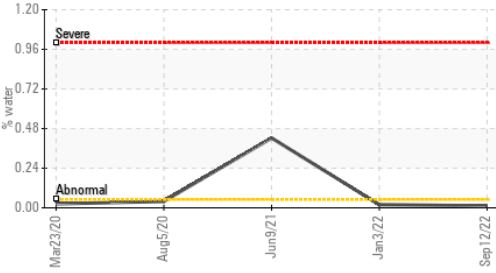
	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	0.48	0.41	0.406

OIL ANALYSIS REPORT

▲ Particle Trend



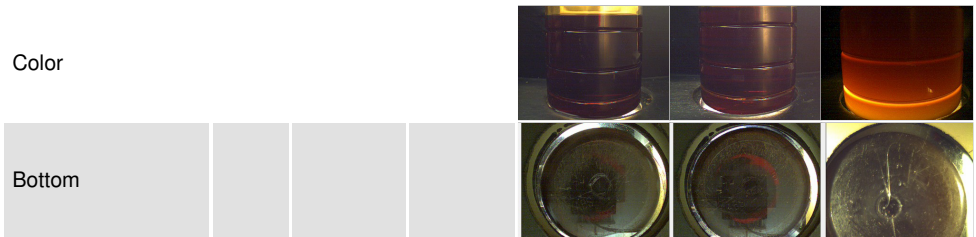
Water



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	NONE	NONE	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	NEG	▲ 0.2%
Free Water	scalar	*Visual		NEG	NEG

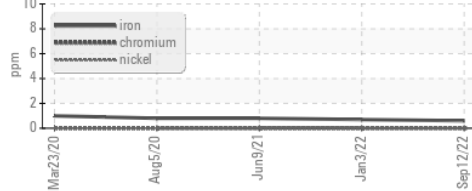
FLUID PROPERTIES	method	limit/base	current	history 1	history 2	
Visc @ 40°C	cSt	ASTM D445	45	55.4	50.2	49.1

SAMPLE IMAGES	method	limit/base	current	history 1	history 2
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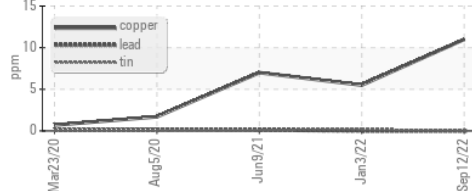


GRAPHS

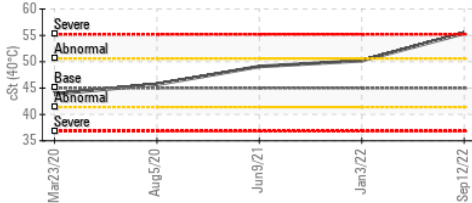
Ferrous Alloys



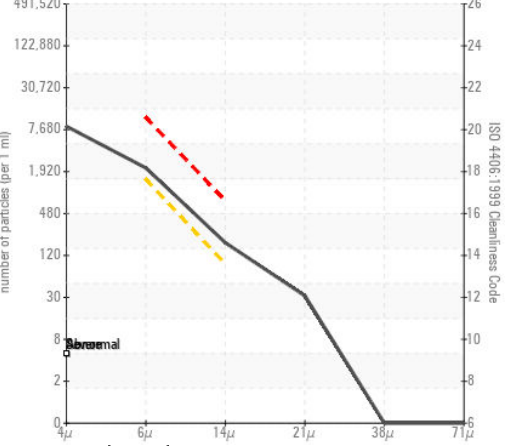
Non-ferrous Metals



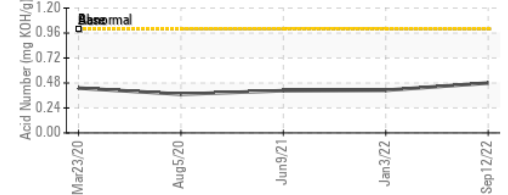
Viscosity @ 40°C



▲ Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP49298 **Received** : 15 Sep 2022
Lab Number : 05643061 **Diagnosed** : 19 Sep 2022
Unique Number : 10137600 **Diagnostician** : Doug Bogart
Test Package : IND 2 (Additional Tests: KF, PrtCount)

TRIUMPH SHEETS
 4100 OLD TASSO RD NE
 CLEVELAND, TN
 USA 37312
 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: