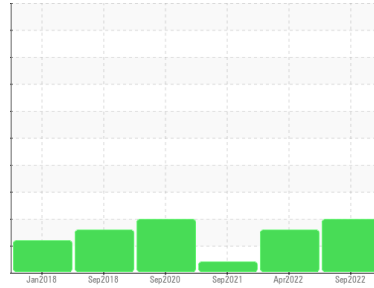
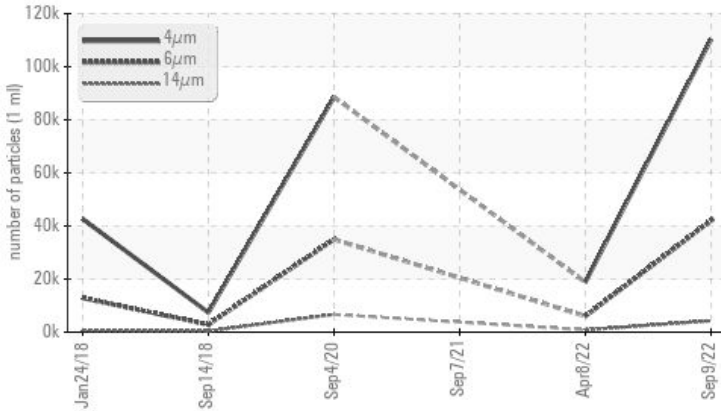


Machine Id
KAESER CSD 75T 5945025 (S/N 1172)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)



COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status			ABNORMAL	ABNORMAL	ABNORMAL
Particles >6µm	ASTM D7647	>1300	▲ 42049	▲ 6029	---
Particles >14µm	ASTM D7647	>80	▲ 4289	▲ 837	---
Particles >21µm	ASTM D7647	>20	▲ 699	▲ 280	---
Particles >38µm	ASTM D7647	>4	▲ 12	▲ 11	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 24/23/19	▲ 20/17	---

Customer Id: MILCOL
Sample No.: KCP45999
Lab Number: 05648917
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Angela Borella +1 800-237-1369
angela.borella@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

08 Apr 2022 Diag: Doug Bogart

ISO



Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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.



07 Sep 2021 Diag: Don Baldrige

VIS DEBRIS



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. 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. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



04 Sep 2020 Diag: Don Baldrige

VISCOSITY



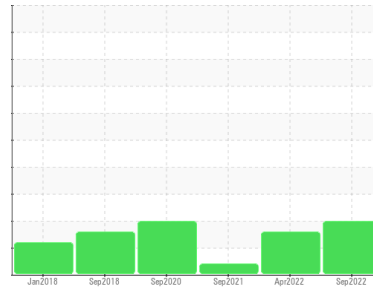
Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The oil viscosity is higher than normal. The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



Machine Id
KAESER CSD 75T 5945025 (S/N 1172)

Component
Compressor

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



DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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			KCP45999	KCP45234	KCP37654
Sample Date			09 Sep 2022	08 Apr 2022	07 Sep 2021
Machine Age	hrs		24010	21721	19515
Oil Age	hrs		2289	3200	3892
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	2	2	2
Chromium	ppm ASTM D5185m	>10	0	<1	0
Nickel	ppm ASTM D5185m	>3	0	0	0
Titanium	ppm ASTM D5185m	>3	<1	0	0
Silver	ppm ASTM D5185m	>2	1	<1	<1
Aluminum	ppm ASTM D5185m	>10	2	2	5
Lead	ppm ASTM D5185m	>10	0	0	0
Copper	ppm ASTM D5185m	>50	11	5	11
Tin	ppm ASTM D5185m	>10	0	<1	<1
Antimony	ppm ASTM D5185m		---	---	0
Vanadium	ppm ASTM D5185m		0	0	0
Cadmium	ppm ASTM D5185m		0	<1	0

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm ASTM D5185m	0	0	0	16
Barium	ppm ASTM D5185m	90	0	0	0
Molybdenum	ppm ASTM D5185m	0	0	0	0
Manganese	ppm ASTM D5185m		<1	<1	<1
Magnesium	ppm ASTM D5185m	100	39	20	10
Calcium	ppm ASTM D5185m	0	0	0	0
Phosphorus	ppm ASTM D5185m	0	20	2	1
Zinc	ppm ASTM D5185m	0	65	20	19
Sulfur	ppm ASTM D5185m	23500	23110	16947	17812

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm ASTM D5185m	>25	2	<1	<1
Sodium	ppm ASTM D5185m		17	6	5
Potassium	ppm ASTM D5185m	>20	7	2	<1
Water	% ASTM D6304	>0.05	0.025	0.013	0.016
ppm Water	ppm ASTM D6304	>500	250.8	136.5	161.8

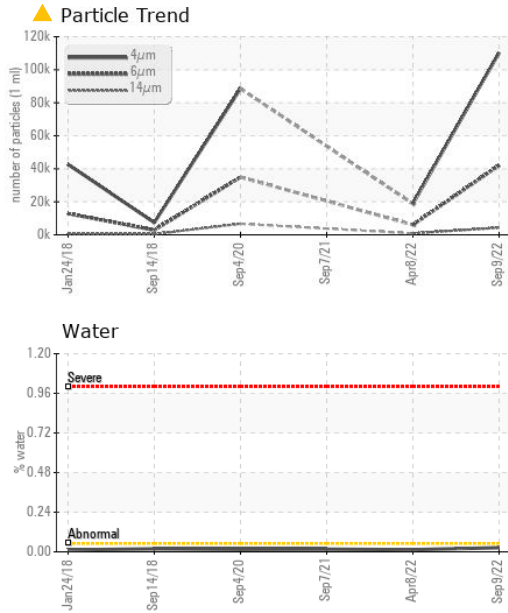
FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		110285	18844	---
Particles >6µm	ASTM D7647	>1300	▲ 42049	▲ 6029	---
Particles >14µm	ASTM D7647	>80	▲ 4289	▲ 837	---
Particles >21µm	ASTM D7647	>20	▲ 699	▲ 280	---
Particles >38µm	ASTM D7647	>4	▲ 12	▲ 11	---
Particles >71µm	ASTM D7647	>3	0	0	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 24/23/19	▲ 20/17	---

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g ASTM D8045	1.0	0.46	0.49	0.431

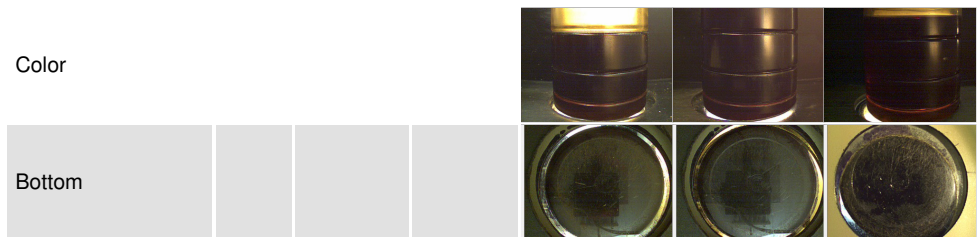
OIL ANALYSIS REPORT



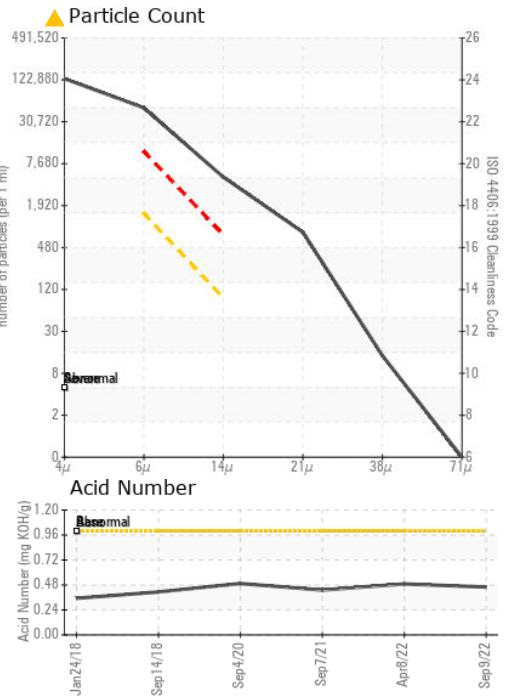
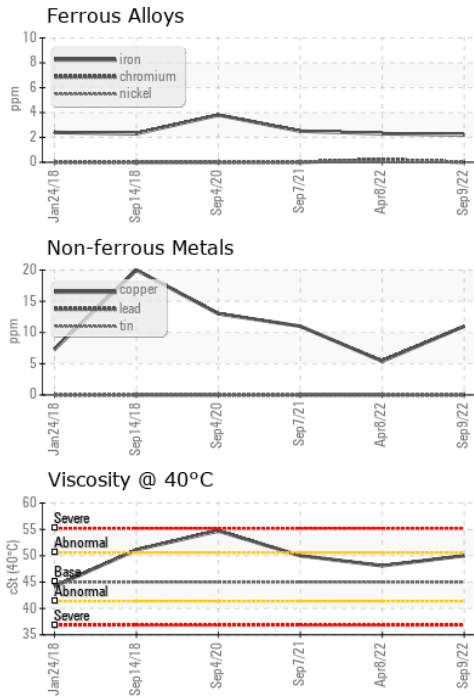
VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D445	45	50.0	48.1

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



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP45999 **Received** : 22 Sep 2022
Lab Number : 05648917 **Diagnosed** : 26 Sep 2022
Unique Number : 10143456 **Diagnostician** : Angela Borella
Test Package : IND 2 (Additional Tests: KF, PrtCount)

MILLWOOD INC
 1886 WILLIAMS RD
 COLUMBUS, OH
 USA 43207
 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: