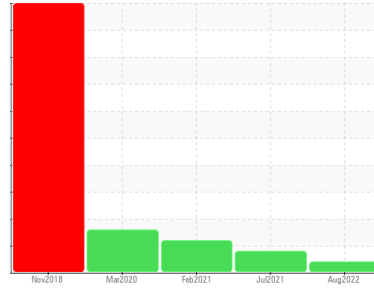


PROBLEM SUMMARY

Sample Rating Trend



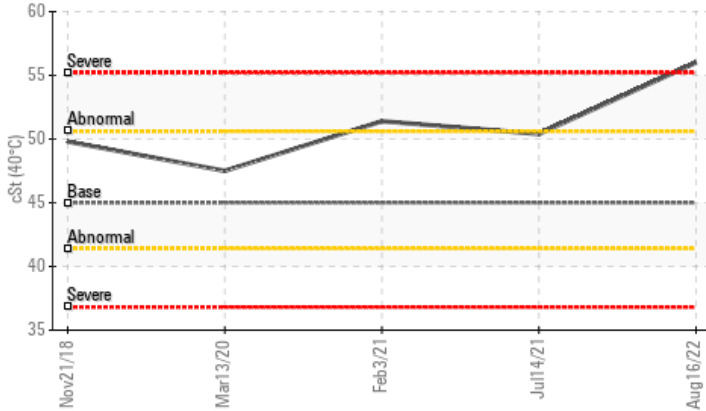
VISCOSITY



Machine Id
KAESER SK 20T 5970906 (S/N 1658)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Viscosity @ 40°C



RECOMMENDATION

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				ATTENTION	ATTENTION	ABNORMAL
Visc @ 40°C	cSt	ASTM D445	45	▲ 56.0	50.4	51.4

Customer Id: CARCOLOH
Sample No.: KCP50030
Lab Number: 05632365
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.

HISTORICAL DIAGNOSIS

14 Jul 2021 Diag: Angela Borella

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 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](#)



03 Feb 2021 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](#)



13 Mar 2020 Diag: Don Baldrige

ISO



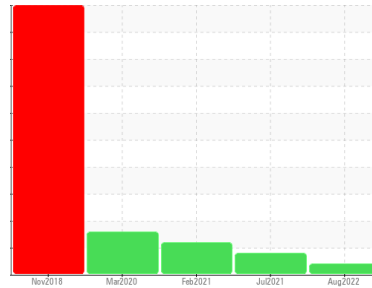
No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid.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

[view report](#)



OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
KAESER SK 20T 5970906 (S/N 1658)

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

DIAGNOSIS

▲ Recommendation

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 no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

▲ Fluid Condition

The oil viscosity is higher than normal. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number			KCP50030	KCP41891	KCP28346
Sample Date			16 Aug 2022	14 Jul 2021	03 Feb 2021
Machine Age	hrs		45836	36684	32826
Oil Age	hrs		10800	3858	7100
Oil Changed			Changed	Changed	Changed
Sample Status			ATTENTION	ATTENTION	ABNORMAL

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185m >50	0	0	0
Chromium	ppm	ASTM D5185m >10	0	0	0
Nickel	ppm	ASTM D5185m >3	0	<1	0
Titanium	ppm	ASTM D5185m >3	0	0	0
Silver	ppm	ASTM D5185m >2	0	0	0
Aluminum	ppm	ASTM D5185m >10	<1	0	0
Lead	ppm	ASTM D5185m >10	0	<1	0
Copper	ppm	ASTM D5185m >50	20	8	11
Tin	ppm	ASTM D5185m >10	<1	<1	0
Antimony	ppm	ASTM D5185m	---	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185m 0	0	14	<1
Barium	ppm	ASTM D5185m 90	0	0	0
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	0	0	0
Magnesium	ppm	ASTM D5185m 100	<1	<1	<1
Calcium	ppm	ASTM D5185m 0	0	0	0
Phosphorus	ppm	ASTM D5185m 0	2	6	<1
Zinc	ppm	ASTM D5185m 0	0	0	0
Sulfur	ppm	ASTM D5185m 23500	18310	20714	18169

CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185m >25	<1	<1	2
Sodium	ppm	ASTM D5185m	0	<1	0
Potassium	ppm	ASTM D5185m >20	1	0	0
Water	%	ASTM D6304 >0.05	0.006	0.009	0.005
ppm Water	ppm	ASTM D6304 >500	66.0	96.2	54.3

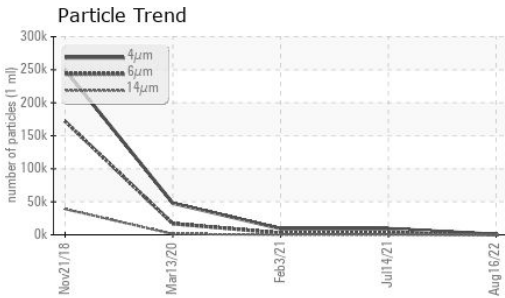
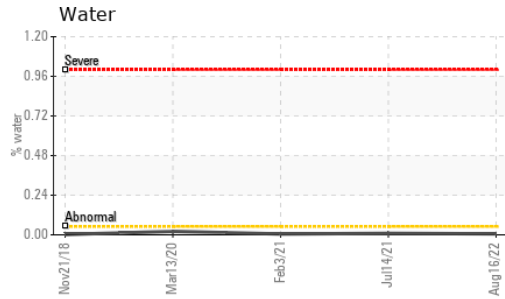
FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647		701	9284	9252
Particles >6µm	ASTM D7647	>1300	104	▲ 2285	▲ 2719
Particles >14µm	ASTM D7647	>80	2	▲ 109	▲ 208
Particles >21µm	ASTM D7647	>20	1	26	▲ 52
Particles >38µm	ASTM D7647	>4	0	2	2
Particles >71µm	ASTM D7647	>3	0	0	0
Oil Cleanliness	ISO 4406 (c)	>--/17/13	17/14/9	▲ 18/14	▲ 19/15

FLUID DEGRADATION

	method	limit/base	current	history 1	history 2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	0.54	0.456	0.488

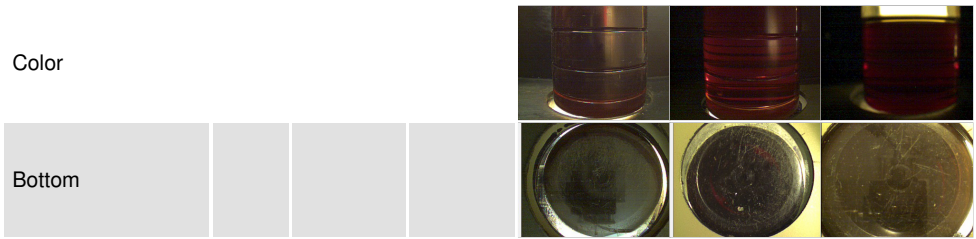
OIL ANALYSIS REPORT



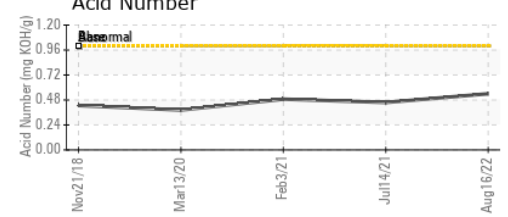
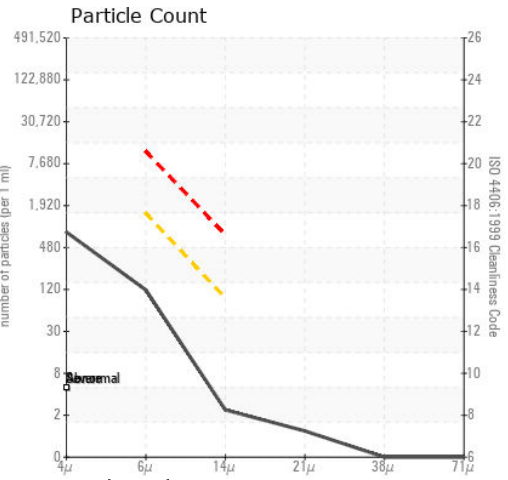
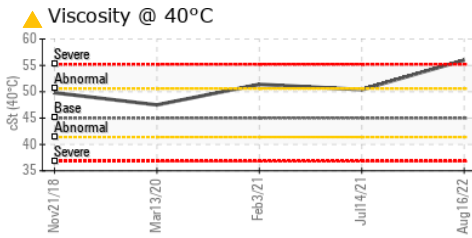
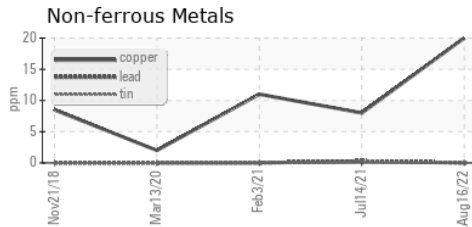
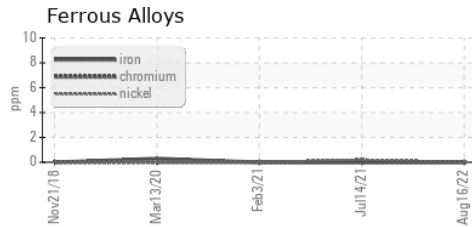
VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	▲ 56.0	50.4	51.4

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



GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCP50030 **Received** : 01 Sep 2022
Lab Number : 05632365 **Diagnosed** : 03 Sep 2022
Unique Number : 10116886 **Diagnostician** : Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PrtCount)

CARMAX 07176
 2700 FARMERS DR
 COLUMBUS, OH
 USA 43235
 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)