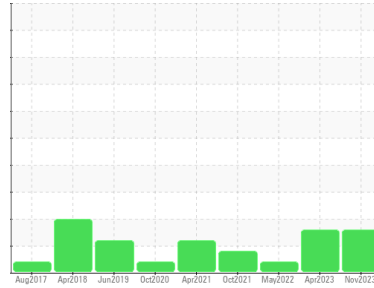




PROBLEM SUMMARY

Sample Rating Trend



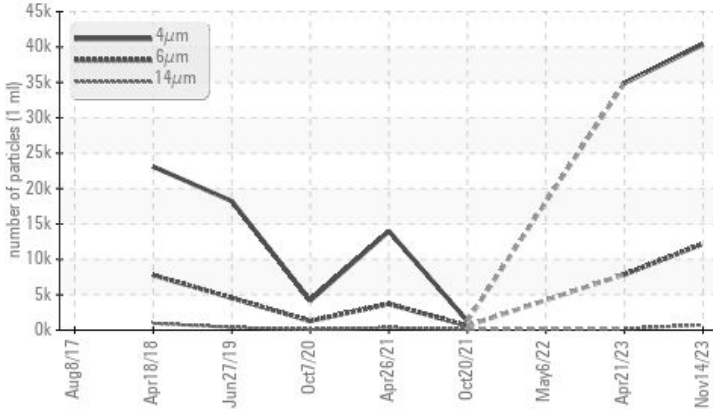
ISO



Machine Id
KAESER AIRCENTER SK 15 4319631 (S/N 1154)
 Component
Compressor
 Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend



RECOMMENDATION

The 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	▲ 12206	▲ 7862	---
Particles >14µm	ASTM D7647	>80	▲ 746	▲ 199	---
Particles >21µm	ASTM D7647	>20	▲ 151	▲ 47	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 23/21/17	▲ 22/20/15	---

Customer Id: TOYDAL
 Sample No.: KCPA011175
 Lab Number: 06016405
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
 Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
 Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

21 Apr 2023 Diag: Angela Borella

ISO



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 high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report



06 May 2022 Diag: Don Baldrige

VIS DEBRIS



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. 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.

view report



20 Oct 2021 Diag: Don Baldrige

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.

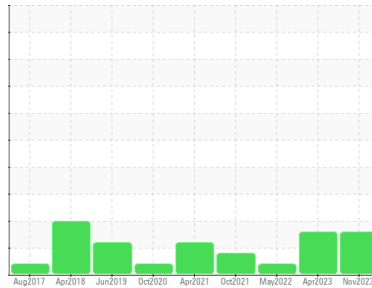
view report





OIL ANALYSIS REPORT

Sample Rating Trend



ISO



Machine Id
KAESER AIRCENTER SK 15 4319631 (S/N 1154)

Component

Compressor

Fluid

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

DIAGNOSIS

Recommendation

The 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	history1	history2
Sample Number	Client Info		KCPA011175	KCPA002646	KCP45126
Sample Date	Client Info		14 Nov 2023	21 Apr 2023	06 May 2022
Machine Age	hrs	Client Info	56654	54165	46705
Oil Age	hrs	Client Info	0	0	3000
Oil Changed	Client Info		N/A	N/A	Changed
Sample Status			ABNORMAL	ABNORMAL	ABNORMAL

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	<1	2	<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	0	0	0
Aluminum	ppm	ASTM D5185m >10	1	1	2
Lead	ppm	ASTM D5185m >10	0	0	0
Copper	ppm	ASTM D5185m >50	5	6	1
Tin	ppm	ASTM D5185m >10	0	0	0
Antimony	ppm	ASTM D5185m	---	---	---
Vanadium	ppm	ASTM D5185m	0	<1	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	0	0	<1
Barium	ppm	ASTM D5185m 90	0	13	14
Molybdenum	ppm	ASTM D5185m 0	0	0	0
Manganese	ppm	ASTM D5185m	0	<1	0
Magnesium	ppm	ASTM D5185m 100	5	30	66
Calcium	ppm	ASTM D5185m 0	0	0	0
Phosphorus	ppm	ASTM D5185m 0	0	3	5
Zinc	ppm	ASTM D5185m 0	14	41	12
Sulfur	ppm	ASTM D5185m 23500	17768	20857	18891

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	0	0	<1
Sodium	ppm	ASTM D5185m	0	3	7
Potassium	ppm	ASTM D5185m >20	1	0	1
Water	%	ASTM D6304 >0.05	0.017	0.015	0.023
ppm Water	ppm	ASTM D6304 >500	172	153.5	238.9

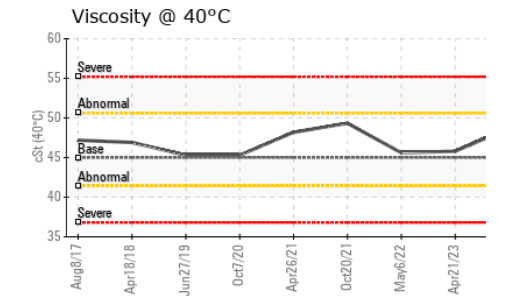
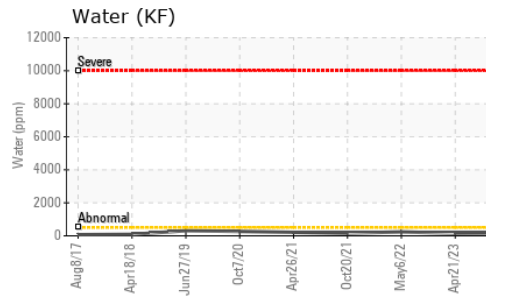
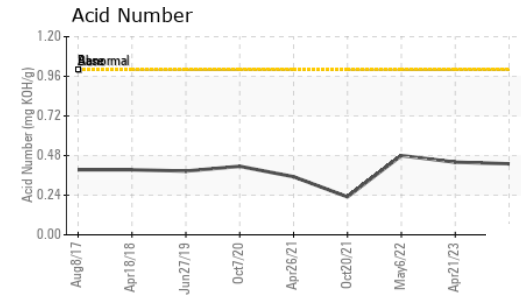
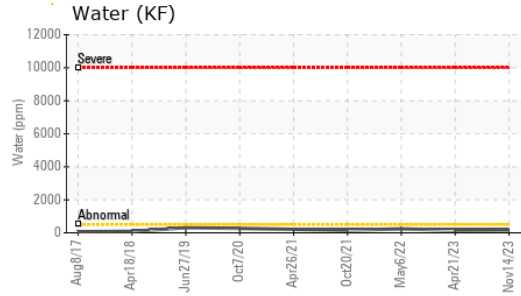
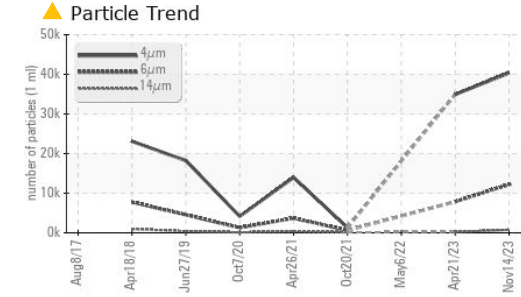
FLUID CLEANLINESS

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		40350	34917	---
Particles >6µm	ASTM D7647	>1300	▲ 12206	▲ 7862	---
Particles >14µm	ASTM D7647	>80	▲ 746	▲ 199	---
Particles >21µm	ASTM D7647	>20	▲ 151	▲ 47	---
Particles >38µm	ASTM D7647	>4	3	2	---
Particles >71µm	ASTM D7647	>3	0	0	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ 23/21/17	▲ 22/20/15	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	0.43	0.44	0.48

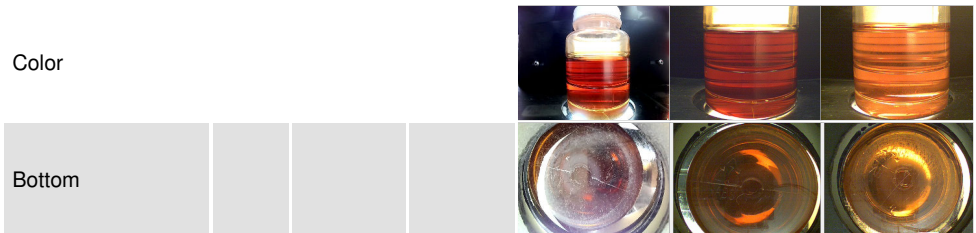
OIL ANALYSIS REPORT



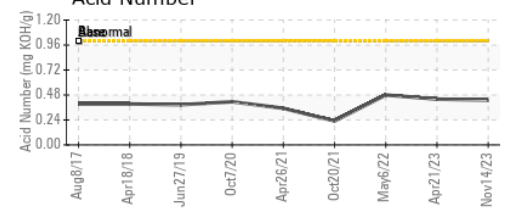
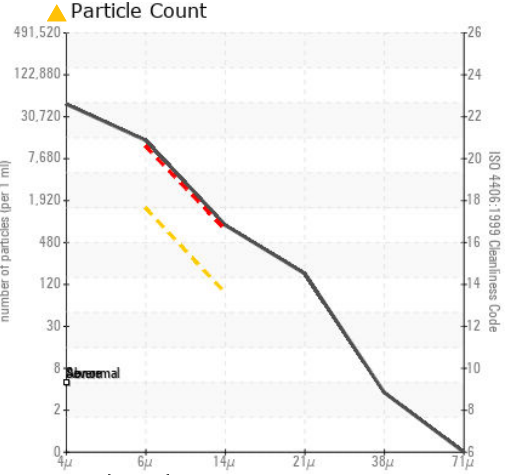
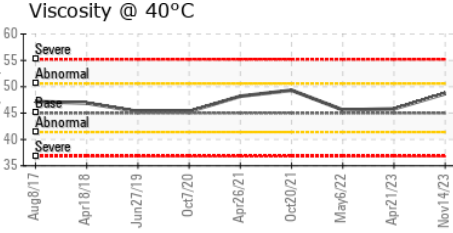
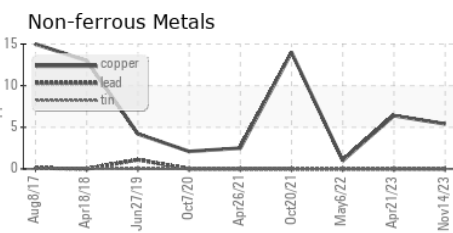
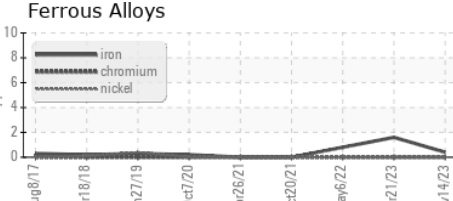
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	LIGHT	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	LIGHT
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	48.7	45.8

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA011175 **Received** : 24 Nov 2023
Lab Number : 06016405 **Diagnosed** : 01 Dec 2023
Unique Number : 10755549 **Diagnostician** : Jonathan Hester
Test Package : IND 2 (Additional Tests: KF, PrtCount)

TOYOTA OF DALLAS
 2610 FOREST LN
 DALLAS, TX
 US 75234
 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: