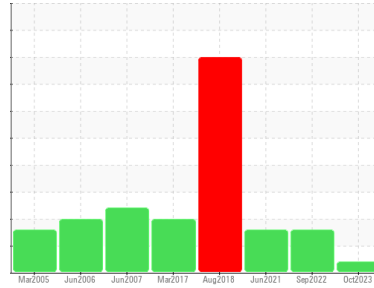# KAESER COMPRESSORS
Built for a lifetime.

PROBLEM SUMMARY

Sample Rating Trend

Machine Id
KAESER SK19 1585057 (1088)
Component
Compressor
Fluid
KAESER SIGMA (OEM) S-460 (--- GAL)

Mar2005 Jun2006 Jun2007 Mar2017 Aug2018 Jun2021 Sep2022 Oct2023

COMPONENT CONDITION SUMMARY

No relevant graphs to display

RECOMMENDATION

We recommend you service the filters on this component. 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.

PROBLEMATIC TEST RESULTS

				ABNORMAL	ABNORMAL	ABNORMAL
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL
Debris	scalar	*Visual	NONE	⚠ **MODER**	LIGHT	LIGHT

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Filter	---	---	?	We recommend you service the filters on this component.
Alert	---	---	?	We were unable to perform a particle count due to a high concentration of particles present in this sample.

HISTORICAL DIAGNOSIS

30 Sep 2022 Diag: Jonathan Hester

ISO

view report

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.

10 Jun 2021 Diag: Angela Borella

ISO

view report

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.

16 Aug 2018 Diag: Angela Borella

ISO

view report

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. The amount and size of particulates present in the system are acceptable. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

OIL ANALYSIS REPORT

KAESER COMPRESSORS
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Sample Rating Trend
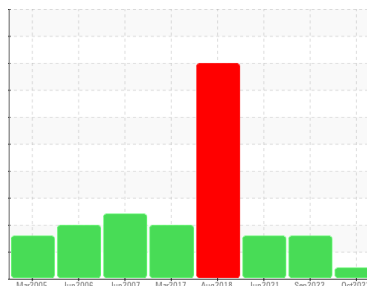
Machine Id
KAESER SK19 1585057 (1088)
Component
Compressor
Fluid
KAESER SIGMA (OEM) S-460 (--- GAL)

DIAGNOSIS

⚠ **Recommendation**
We recommend you service the filters on this component. 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.

Wear
All component wear rates are normal.

⚠ **Contamination**
Moderate concentration of visible dirt/debris 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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KCPA000508**	KCP47021	KCP33656
Sample Date		Client Info		**09 Oct 2023**	30 Sep 2022	10 Jun 2021
Machine Age	hrs	Client Info		**39684**	37054	33667
Oil Age	hrs	Client Info		**0**	3379	2700
Oil Changed		Client Info		**N/A**	Changed	Changed
Sample Status				**ABNORMAL**	ABNORMAL	ABNORMAL

WEAR METALS

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**0**	0	0
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	<1
Aluminum	ppm	ASTM D5185m	>10	**0**	0	0
Lead	ppm	ASTM D5185m	>10	**0**	0	0
Copper	ppm	ASTM D5185m	>50	**7**	10	<1
Tin	ppm	ASTM D5185m	>10	**0**	0	0
Antimony	ppm	ASTM D5185m		**---**	---	0
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**0**	0	0
Barium	ppm	ASTM D5185m	90	**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	0	0
Manganese	ppm	ASTM D5185m		**<1**	<1	0
Magnesium	ppm	ASTM D5185m	90	**0**	5	<1
Calcium	ppm	ASTM D5185m	2	**0**	0	0
Phosphorus	ppm	ASTM D5185m		**0**	2	8
Zinc	ppm	ASTM D5185m		**25**	35	0
Sulfur	ppm	ASTM D5185m		**16080**	19799	1974

CONTAMINANTS

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**0**	0	<1
Sodium	ppm	ASTM D5185m		**7**	1	0
Potassium	ppm	ASTM D5185m	>20	**0**	0	0
Water	%	ASTM D6304	>0.05	**0.006**	0.011	0.020
ppm Water	ppm	ASTM D6304	>500	**63.5**	110.6	205.1

FLUID CLEANLINESS

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**---**	4186	9862
Particles >6µm		ASTM D7647	>1300	**---**	1113	⚠ 3533
Particles >14µm		ASTM D7647	>80	**---**	⚠ 171	⚠ 514
Particles >21µm		ASTM D7647	>20	**---**	⚠ 79	⚠ 190
Particles >38µm		ASTM D7647	>4	**---**	⚠ 9	⚠ 7
Particles >71µm		ASTM D7647	>3	**---**	1	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	**---**	⚠ 19/17/15	⚠ 19/16

FLUID DEGRADATION

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	**0.34**	0.34	0.307

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OIL ANALYSIS REPORT

Water (KF)

(Chart: Water (ppm) vs dates Mar3/05 – Oct9/23, with Severe ~10000 and Abnormal ~500 lines)

Water (KF)

(Chart: Water (ppm) vs dates Mar3/05 – Oct9/23, with Severe ~10000 and Abnormal ~500 lines)

Viscosity @ 40°C

(Chart: cSt (40°C) vs dates, Abnormal ~50, Base ~46, Abnormal ~40)
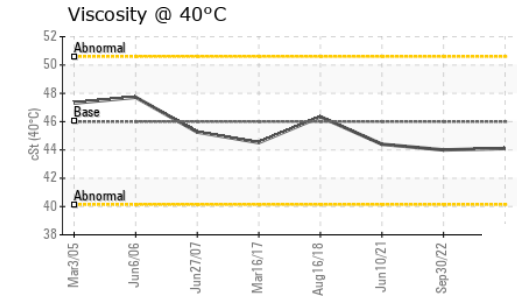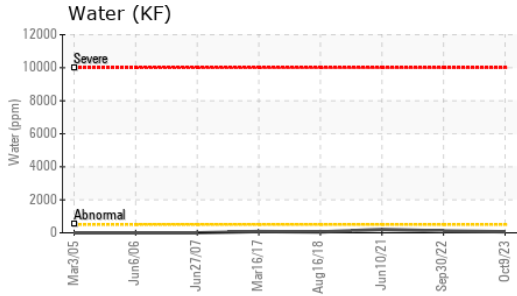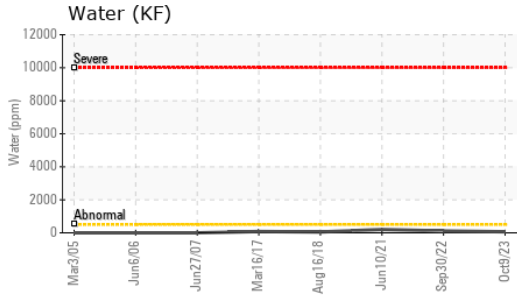
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	⚠ **MODER**	LIGHT	LIGHT
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	**44.1**	44.0	44.4

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color			*(image)*	*(image)*	*(image)*
Bottom			*(image)*	*(image)*	*(image)*
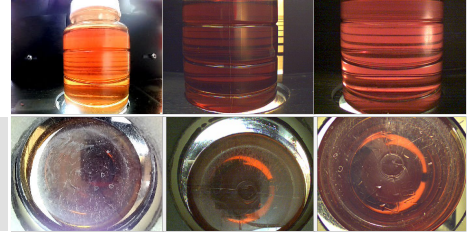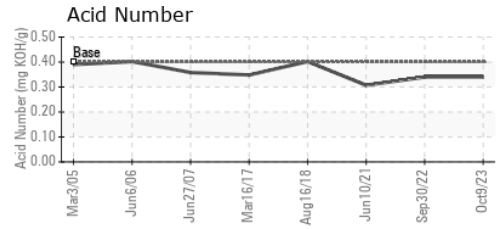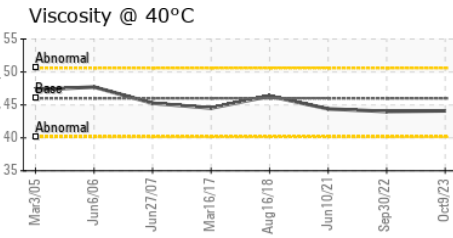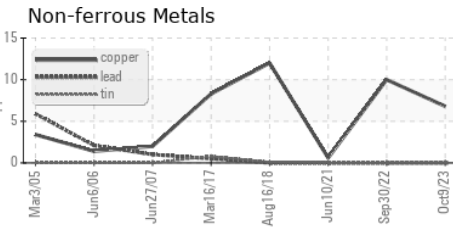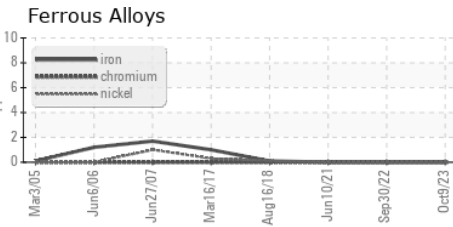
GRAPHS

Ferrous Alloys
(Chart: ppm vs dates; iron, chromium, nickel)

Non-ferrous Metals
(Chart: ppm vs dates; copper, lead, tin)

Viscosity @ 40°C
(Chart: cSt (40°C) vs dates; Abnormal ~50, Base ~46, Abnormal ~40)

Acid Number
(Chart: Acid Number (mg KOH/g) vs dates; Base ~0.40)

ANAB ACCREDITED TESTING LABORATORY
Certificate L2367

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: