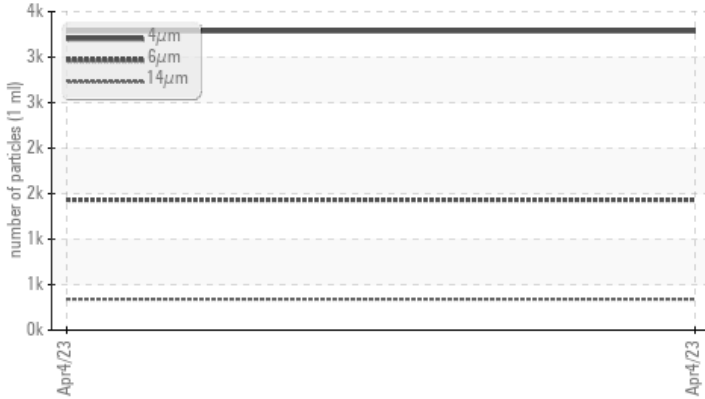# PROBLEM SUMMARY

Sample Rating Trend

Apr2023

ISO

Machine Id
KAESER 8560176 (S/N 1268)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

COMPONENT CONDITION SUMMARY

▲ Particle Trend

RECOMMENDATION

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.

PROBLEMATIC TEST RESULTS

Sample Status			**ABNORMAL**	---	---
Particles >6µm	ASTM D7647	>1300	▲ **1432**	---	---
Particles >14µm	ASTM D7647	>80	▲ **340**	---	---
Particles >21µm	ASTM D7647	>20	▲ **164**	---	---
Particles >38µm	ASTM D7647	>4	▲ **11**	---	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ **19/18/16**	---	---

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

OIL ANALYSIS REPORT

Sample Rating Trend

Machine Id
KAESER 8560176 (S/N 1268)
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

▲ Recommendation
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.

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		**KCP46500**	---	---
Sample Date	Client Info		**04 Apr 2023**	---	---
Machine Age	hrs	Client Info	**4007**	---	---
Oil Age	hrs	Client Info	**4007**	---	---
Oil Changed	Client Info		**Not Changd**	---	---
Sample Status			**ABNORMAL**	---	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**<1**	---	---
Chromium	ppm	ASTM D5185m	>10	**0**	---	---
Nickel	ppm	ASTM D5185m	>3	**0**	---	---
Titanium	ppm	ASTM D5185m	>3	**0**	---	---
Silver	ppm	ASTM D5185m	>2	**0**	---	---
Aluminum	ppm	ASTM D5185m	>10	**0**	---	---
Lead	ppm	ASTM D5185m	>10	**0**	---	---
Copper	ppm	ASTM D5185m	>50	**10**	---	---
Tin	ppm	ASTM D5185m	>10	**0**	---	---
Vanadium	ppm	ASTM D5185m		**0**	---	---
Cadmium	ppm	ASTM D5185m		**0**	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	---	---
Barium	ppm	ASTM D5185m	90	**0**	---	---
Molybdenum	ppm	ASTM D5185m	0	**0**	---	---
Manganese	ppm	ASTM D5185m		**0**	---	---
Magnesium	ppm	ASTM D5185m	100	**16**	---	---
Calcium	ppm	ASTM D5185m	0	**0**	---	---
Phosphorus	ppm	ASTM D5185m	0	**11**	---	---
Zinc	ppm	ASTM D5185m	0	**31**	---	---
Sulfur	ppm	ASTM D5185m	23500	**17638**	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**2**	---	---
Sodium	ppm	ASTM D5185m		**8**	---	---
Potassium	ppm	ASTM D5185m	>20	**9**	---	---
Water	%	ASTM D6304	>0.05	**0.010**	---	---
ppm Water	ppm	ASTM D6304	>500	**107.8**	---	---

FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		**3286**	---	---
Particles >6µm	ASTM D7647	>1300	▲ **1432**	---	---
Particles >14µm	ASTM D7647	>80	▲ **340**	---	---
Particles >21µm	ASTM D7647	>20	▲ **164**	---	---
Particles >38µm	ASTM D7647	>4	▲ **11**	---	---
Particles >71µm	ASTM D7647	>3	**1**	---	---
Oil Cleanliness	ISO 4406 (c)	>--/17/13	▲ **19/18/16**	---	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	**0.38**	---	---

OIL ANALYSIS REPORT

KAESER COMPRESSORS — Built for a lifetime.

Particle Trend

(graph: number of particles (1 ml) vs Apr4/23 — 4µm, 6µm, 14µm)

Water (KF)

(graph: Water (ppm) — Severe, Abnormal)

Acid Number

(graph: Acid Number (mg KOH/g))

Water (KF)

(graph: Water (ppm) — Severe, Abnormal)

Viscosity @ 40°C

(graph: cSt (40°C) — Severe, Abnormal, Base, Abnormal, Severe)
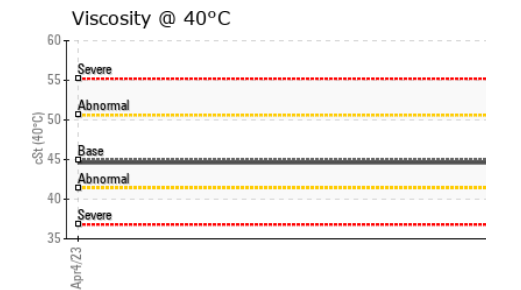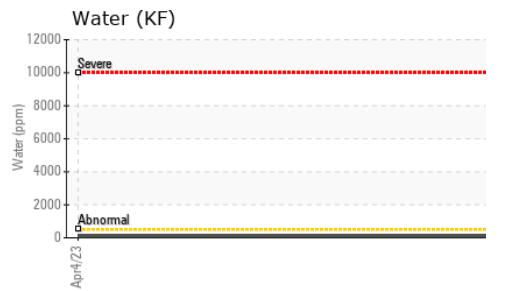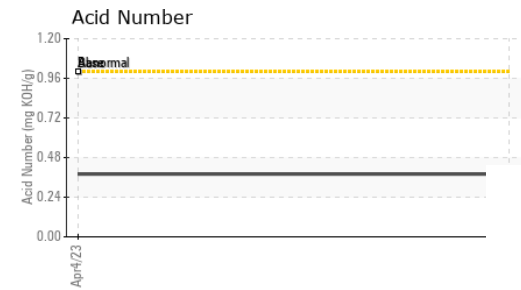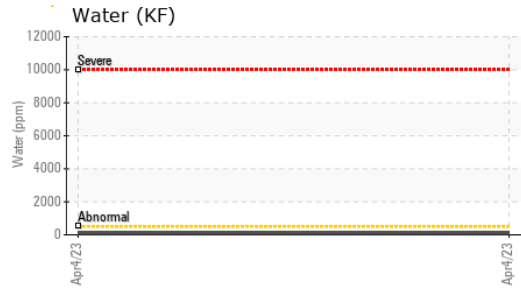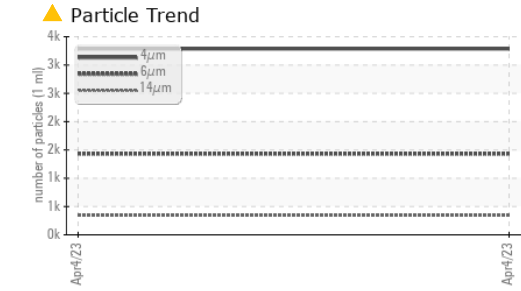
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	---	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	---	---
Precipitate	scalar	*Visual	NONE	**NONE**	---	---
Silt	scalar	*Visual	NONE	**NONE**	---	---
Debris	scalar	*Visual	NONE	**NONE**	---	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	---	---
Appearance	scalar	*Visual	NORML	**NORML**	---	---
Odor	scalar	*Visual	NORML	**NORML**	---	---
Emulsified Water	scalar	*Visual	>0.05	**NEG**	---	---
Free Water	scalar	*Visual		**NEG**	---	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	**44.6**	---	---

SAMPLE IMAGES	method	limit/base	current	history1	history2
Color				no image	no image
Bottom				no image	no image

GRAPHS
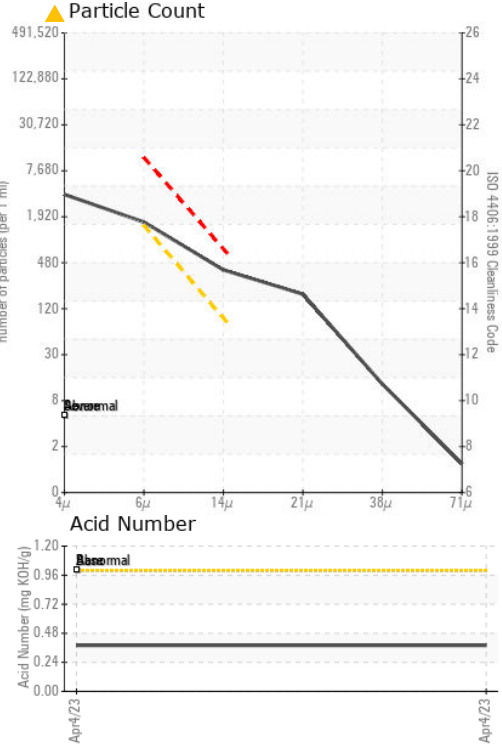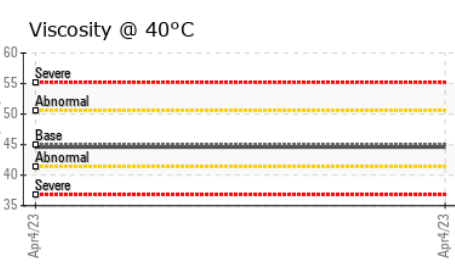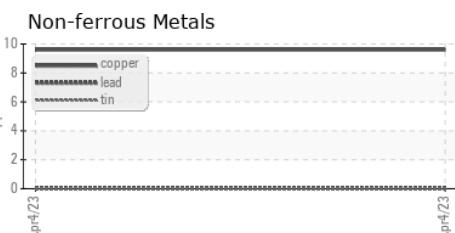
Ferrous Alloys

(graph: ppm — iron, chromium, nickel)

Non-ferrous Metals

(graph: ppm — copper, lead, tin)

Viscosity @ 40°C

(graph: cSt (40°C) — Severe, Abnormal, Base, Abnormal, Severe)

Particle Count

(graph: number of particles (per 1 ml) vs particle size 4µ–71µ; ISO 4406:1999 Cleanliness Code — Abnormal)

Acid Number

(graph: Acid Number (mg KOH/g) — Abnormal)

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)

Certificate L2367