



OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Machine Id
KAESER 9000052

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

DIAGNOSIS

▲ Recommendation

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.

Wear

All component wear rates are normal.

▲ Contamination

There is a high amount of particulates present in the oil.

● Fluid Condition

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

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	KCPA013688	---	---
Sample Date	Client Info	14 Mar 2024	---	---
Machine Age	hrs	Client Info	2871	---
Oil Age	hrs	Client Info	0	---
Oil Changed	Client Info	Changed	---	---
Sample Status		ABNORMAL	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	0	---
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	7	---
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	52	---
Molybdenum	ppm	ASTM D5185m 0	0	---
Manganese	ppm	ASTM D5185m	0	---
Magnesium	ppm	ASTM D5185m 100	16	---
Calcium	ppm	ASTM D5185m 0	5	---
Phosphorus	ppm	ASTM D5185m 0	174	---
Zinc	ppm	ASTM D5185m 0	2	---
Sulfur	ppm	ASTM D5185m 23500	13984	---

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	2	---
Sodium	ppm	ASTM D5185m	3	---
Potassium	ppm	ASTM D5185m >20	0	---
Water	%	ASTM D6304 >0.05	0.044	---
ppm Water	ppm	ASTM D6304 >500	449	---

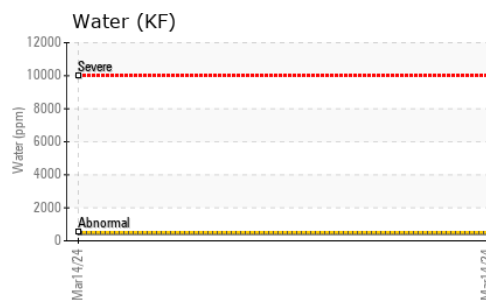
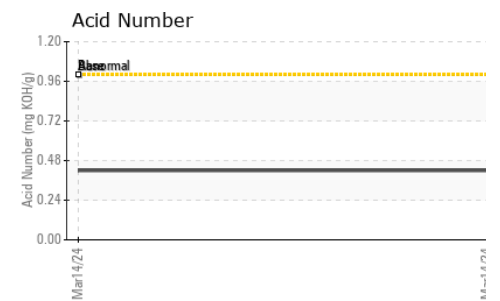
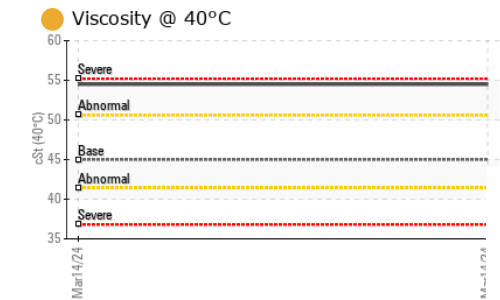
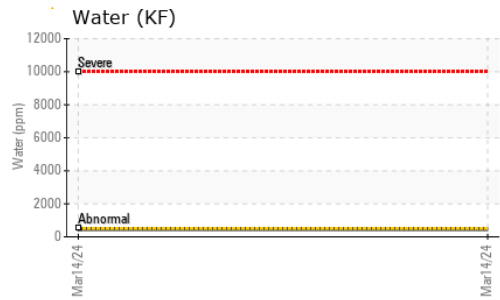
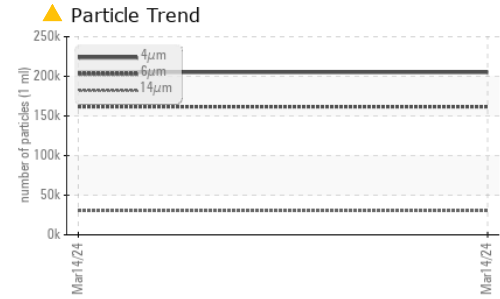
FLUID CLEANLINESS

method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	205030	---	---
Particles >6µm	ASTM D7647 >1300	▲ 161650	---	---
Particles >14µm	ASTM D7647 >80	▲ 30285	---	---
Particles >21µm	ASTM D7647 >20	▲ 2718	---	---
Particles >38µm	ASTM D7647 >4	▲ 6	---	---
Particles >71µm	ASTM D7647 >3	0	---	---
Oil Cleanliness	ISO 4406 (c) >--/17/13	▲ 25/25/22	---	---

FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 1.0	0.42	---

OIL ANALYSIS REPORT



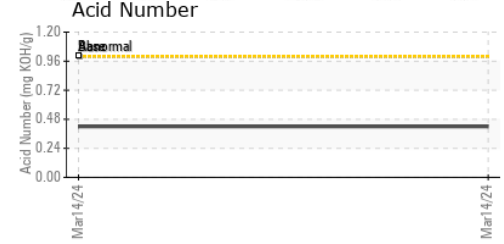
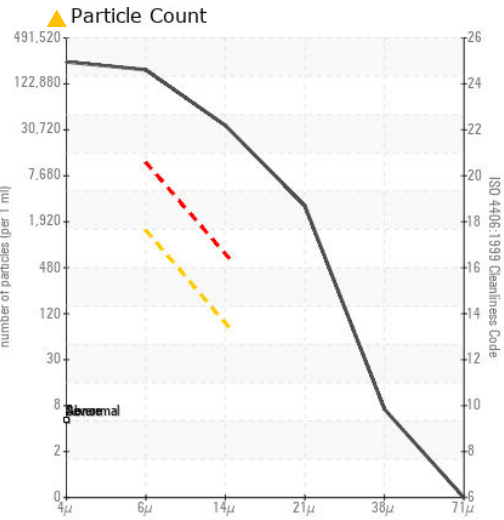
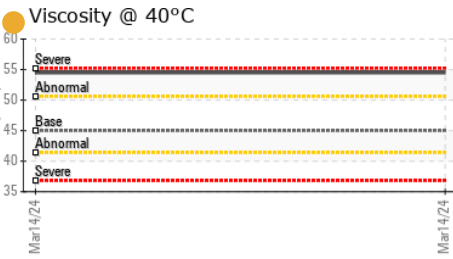
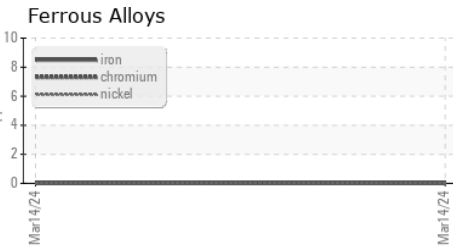
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*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	54.5	---

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

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA013688 **Received** : 20 Mar 2024
Lab Number : 06124301 **Tested** : 21 Mar 2024
Unique Number : 10938452 **Diagnosed** : 23 Mar 2024 - Don Baldrige
Test Package : IND 2 (Additional Tests: KF, PrtCount)

SEAWORLD SAN ANTONIO
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 arthur.hart@seaworld.com

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)