KAESER COMPRESSORS
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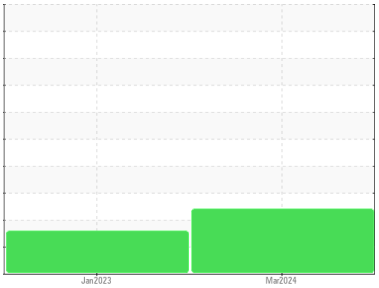
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
KAESER 6427963
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- GAL)

DIAGNOSIS

Recommendation
Oil and filter change at the time of sampling has been noted. We were unable to perform a particle count due to a high concentration of particles present in this sample. We recommend an early resample in 500 hours to monitor this condition.

Wear
All component wear rates are normal.

Contamination
There is a moderate amount of visible silt present in the sample. There is a light concentration of water present in the oil.

Fluid Condition
The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KCPA013281**	KCP54083	---
Sample Date		Client Info		**04 Mar 2024**	19 Jan 2023	---
Machine Age	hrs	Client Info		**19495**	15143	---
Oil Age	hrs	Client Info		**4352**	3000	---
Oil Changed		Client Info		**Changed**	Changed	---
Sample Status				**ABNORMAL**	ABNORMAL	---

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**0**	0	---
Chromium	ppm	ASTM D5185m	>10	**0**	0	---
Nickel	ppm	ASTM D5185m	>3	**0**	0	---
Titanium	ppm	ASTM D5185m	>3	**0**	0	---
Silver	ppm	ASTM D5185m	>2	**0**	0	---
Aluminum	ppm	ASTM D5185m	>10	**0**	0	---
Lead	ppm	ASTM D5185m	>10	**0**	<1	---
Copper	ppm	ASTM D5185m	>50	**6**	39	---
Tin	ppm	ASTM D5185m	>10	**0**	0	---
Vanadium	ppm	ASTM D5185m		**0**	0	---
Cadmium	ppm	ASTM D5185m		**0**	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	0	---
Barium	ppm	ASTM D5185m	90	**0**	0	---
Molybdenum	ppm	ASTM D5185m	0	**0**	0	---
Manganese	ppm	ASTM D5185m		**0**	0	---
Magnesium	ppm	ASTM D5185m	100	**38**	4	---
Calcium	ppm	ASTM D5185m	0	**0**	0	---
Phosphorus	ppm	ASTM D5185m	0	**0**	37	---
Zinc	ppm	ASTM D5185m	0	**1**	13	---
Sulfur	ppm	ASTM D5185m	23500	**21218**	18477	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**<1**	2	---
Sodium	ppm	ASTM D5185m		**13**	3	---
Potassium	ppm	ASTM D5185m	>20	**0**	0	---
Water	%	ASTM D6304	>0.05	▲ **0.190**	▲ 0.092	---
ppm Water	ppm	ASTM D6304	>500	▲ **1900**	▲ 920	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**---**	4658	---
Particles >6µm		ASTM D7647	>1300	**---**	644	---
Particles >14µm		ASTM D7647	>80	**---**	17	---
Particles >21µm		ASTM D7647	>20	**---**	2	---
Particles >38µm		ASTM D7647	>4	**---**	0	---
Particles >71µm		ASTM D7647	>3	**---**	0	---
Oil Cleanliness		ISO 4406 (c)	>--/17/13	**---**	19/17/11	---

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	**0.34**	0.27	---

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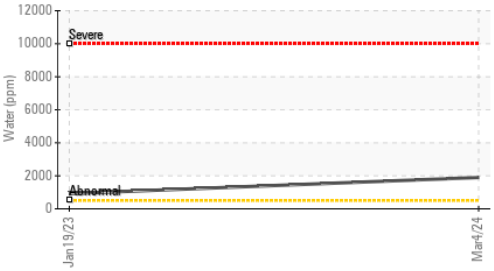
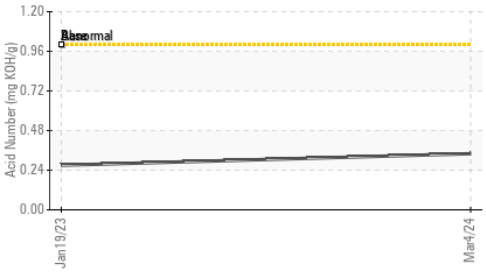
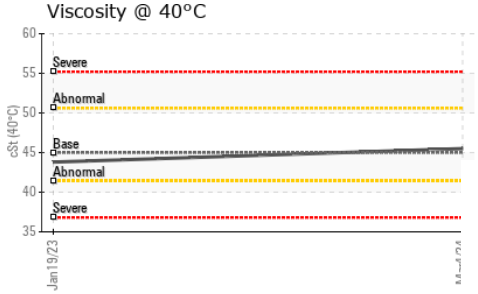
Water (KF)



Acid Number

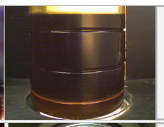
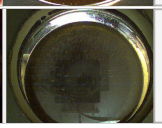


Viscosity @ 40°C



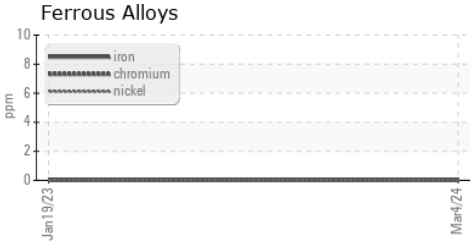
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	---
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	---
Silt	scalar	*Visual	NONE	▲ **MODER**	NONE	---
Debris	scalar	*Visual	NONE	**NONE**	LIGHT	---
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	---
Appearance	scalar	*Visual	NORML	**NORML**	NORML	---
Odor	scalar	*Visual	NORML	**NORML**	NORML	---
Emulsified Water	scalar	*Visual	>0.05	▲ **0.2%**	NEG	---
Free Water	scalar	*Visual		**NEG**	NEG	---

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	**45.5**	43.8	---

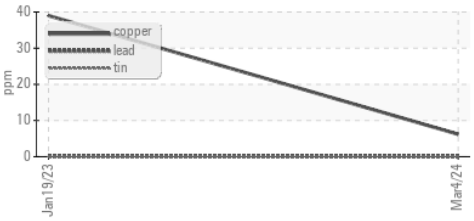
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					*no image*
Bottom					*no image*

GRAPHS

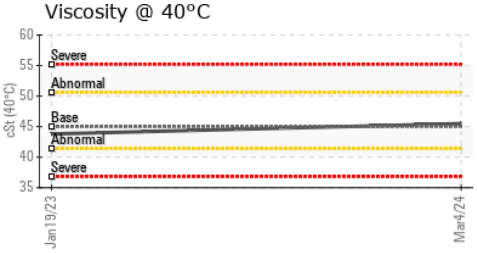
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 40°C



Acid Number

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA013281 **Received** : 27 Mar 2024
Lab Number : 06130639 **Tested** : 30 Mar 2024
Unique Number : 10950104 **Diagnosed** : 30 Mar 2024 - Don Baldridge
Test Package : IND 2 (Additional Tests: KF, PrtCount)

STANDARD MOTOR PRODUCTS
1801 WATER RIDGE DR
LEWISVILLE, TX
US 75057
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: