KAESER COMPRESSORS
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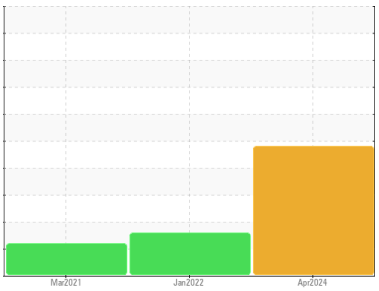
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
4500677 (S/N 1105)
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 moderate concentration of water present in the oil. Free water present.

Fluid Condition
The AN level is acceptable for this fluid.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KCPA016154**	KCP40909	KCP28441
Sample Date		Client Info		**22 Apr 2024**	26 Jan 2022	22 Mar 2021
Machine Age	hrs	Client Info		**11063**	8399	5301
Oil Age	hrs	Client Info		**0**	0	5301
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**ABNORMAL**	ABNORMAL	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**0**	<1	1
Chromium	ppm	ASTM D5185m	>10	**<1**	0	0
Nickel	ppm	ASTM D5185m	>3	**1**	0	0
Titanium	ppm	ASTM D5185m	>3	**<1**	0	0
Silver	ppm	ASTM D5185m	>2	**<1**	0	<1
Aluminum	ppm	ASTM D5185m	>10	**2**	<1	<1
Lead	ppm	ASTM D5185m	>10	**1**	<1	0
Copper	ppm	ASTM D5185m	>50	**7**	3	3
Tin	ppm	ASTM D5185m	>10	**1**	<1	0
Antimony	ppm	ASTM D5185m		**---**	0	0
Vanadium	ppm	ASTM D5185m		**<1**	0	0
Cadmium	ppm	ASTM D5185m		**<1**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	0	10
Barium	ppm	ASTM D5185m	90	**1**	0	0
Molybdenum	ppm	ASTM D5185m	0	**1**	0	0
Manganese	ppm	ASTM D5185m		**<1**	0	<1
Magnesium	ppm	ASTM D5185m	100	**14**	2	19
Calcium	ppm	ASTM D5185m	0	**4**	0	0
Phosphorus	ppm	ASTM D5185m	0	**3**	3	4
Zinc	ppm	ASTM D5185m	0	**6**	20	14
Sulfur	ppm	ASTM D5185m	23500	**21719**	18551	16241

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**1**	<1	<1
Sodium	ppm	ASTM D5185m		**2**	1	6
Potassium	ppm	ASTM D5185m	>20	**2**	<1	<1
Water	%	ASTM D6304	>0.05	▲ **0.533**	0.005	0.011
ppm Water	ppm	ASTM D6304	>500	▲ **5330**	58.5	111.7

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**---**	13813	12272
Particles >6µm		ASTM D7647	>1300	**---**	▲ 3814	● 1567
Particles >14µm		ASTM D7647	>80	**---**	▲ 327	● 103
Particles >21µm		ASTM D7647	>20	**---**	▲ 79	● 33
Particles >38µm		ASTM D7647	>4	**---**	▲ 6	1
Particles >71µm		ASTM D7647	>3	**---**	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	**---**	▲ 19/16	● 18/14

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	**0.46**	0.45	0.411

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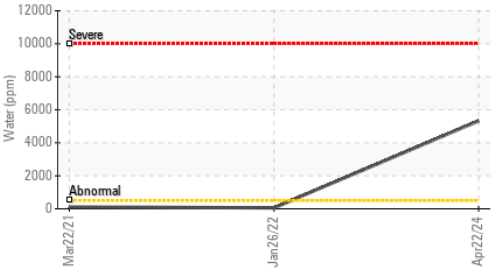
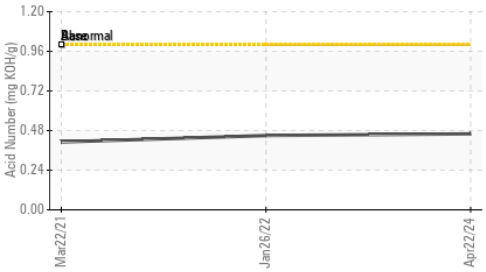
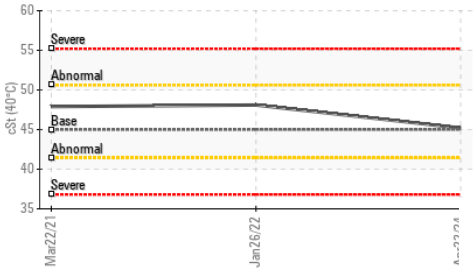
Water (KF)



Acid Number

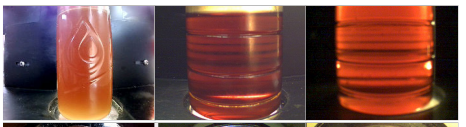
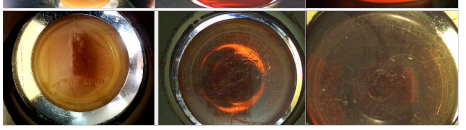


Viscosity @ 40°C



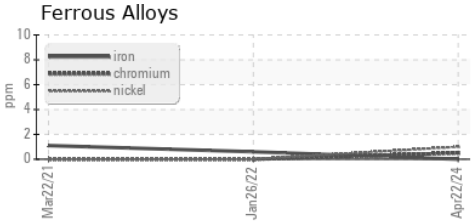
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	▲ **MODER**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	● **HAZY**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	▲ **0.2%**	NEG	NEG
Free Water	scalar	*Visual		▲ **1.0**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	**45.2**	48.1	47.9

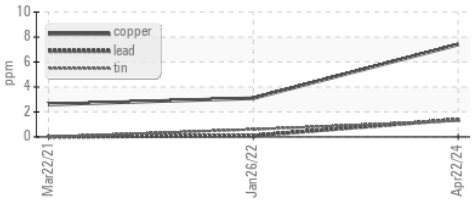
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

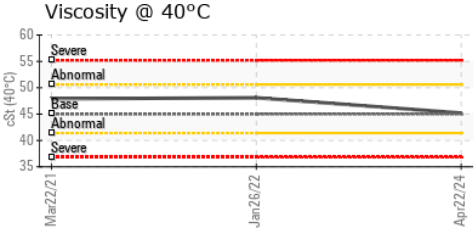
Ferrous Alloys



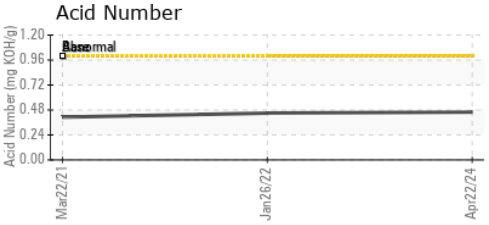
Non-ferrous Metals



Viscosity @ 40°C



Acid Number



ANAB ACCREDITED TESTING LABORATORY
Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA016154 **Received** : 24 Apr 2024
Lab Number : 06159803 **Tested** : 26 Apr 2024
Unique Number : 10995226 **Diagnosed** : 26 Apr 2024 - Don Baldridge
Test Package : IND 2 (Additional Tests: KF, PrtCount)

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)

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