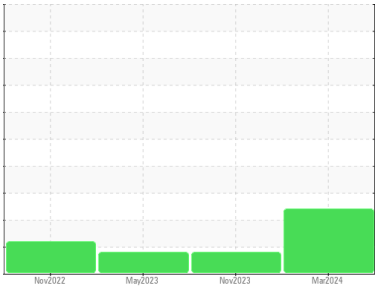
KAESER COMPRESSORS
Built for a lifetime.

OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
KAESER 7780478
Component
Compressor
Fluid
KAESER SIGMA (OEM) M-460 (--- QTS)

DIAGNOSIS

Recommendation
The filter change at the time of sampling has been noted. We advise that you stop the unit and follow the water drain-off procedure for this component. We recommend an early resample in 500 hours to monitor this condition.

Wear
All component wear rates are normal.

Contamination
There is a high amount of silt (particulates < 14 microns in size) present in the oil. 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		**KCPA015924**	KCPA006984	KCP47803D
Sample Date		Client Info		**25 Mar 2024**	09 Nov 2023	09 May 2023
Machine Age	hrs	Client Info		**4287**	4179	2945
Oil Age	hrs	Client Info		**108**	0	1274
Oil Changed		Client Info		**Not Changd**	N/A	Not Changd
Sample Status				**ABNORMAL**	ATTENTION	ATTENTION

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**0**	0	0
Chromium	ppm	ASTM D5185m	>10	**<1**	0	0
Nickel	ppm	ASTM D5185m	>3	**0**	0	0
Titanium	ppm	ASTM D5185m	>3	**<1**	0	0
Silver	ppm	ASTM D5185m	>2	**<1**	0	1
Aluminum	ppm	ASTM D5185m	>10	**3**	<1	2
Lead	ppm	ASTM D5185m	>10	**0**	0	0
Copper	ppm	ASTM D5185m	>50	**19**	46	12
Tin	ppm	ASTM D5185m	>10	**<1**	0	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	**0**	0	0
Barium	ppm	ASTM D5185m	90	**35**	7	0
Molybdenum	ppm	ASTM D5185m	0	**0**	0	0
Manganese	ppm	ASTM D5185m		**0**	0	0
Magnesium	ppm	ASTM D5185m	100	**63**	<1	0
Calcium	ppm	ASTM D5185m	0	**6**	1	0
Phosphorus	ppm	ASTM D5185m	0	**4**	18	0
Zinc	ppm	ASTM D5185m	0	**3**	0	0
Sulfur	ppm	ASTM D5185m	23500	**27810**	27032	21959

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**<1**	0	<1
Sodium	ppm	ASTM D5185m		**11**	0	6
Potassium	ppm	ASTM D5185m	>20	**10**	<1	2
Water	%	ASTM D6304	>0.05	▲ **0.065**	0.007	0.012
ppm Water	ppm	ASTM D6304	>500	▲ **659**	78.7	120.1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**10543**	3457	4666
Particles >6µm		ASTM D7647	>1300	▲ **2924**	918	1511
Particles >14µm		ASTM D7647	>80	**62**	56	37
Particles >21µm		ASTM D7647	>20	**8**	15	9
Particles >38µm		ASTM D7647	>4	**0**	1	0
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ **21/19/13**	19/17/13	19/18/12

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	**0.46**	0.39	0.38

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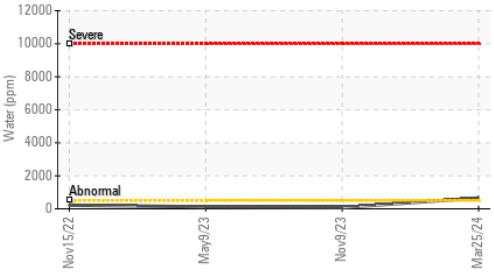
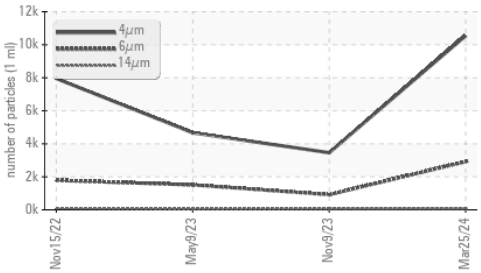
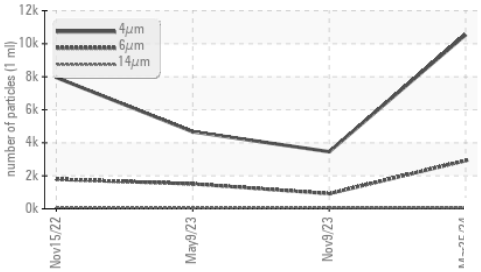
Water (KF)



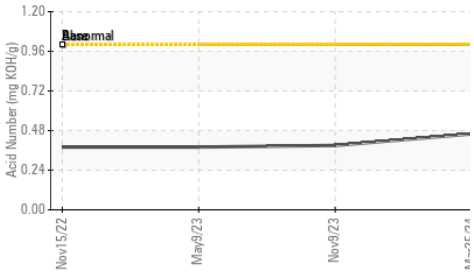
Particle Trend



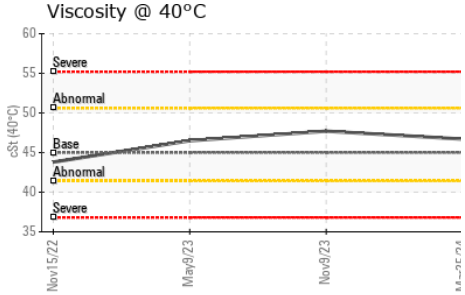
Particle Trend



Acid Number



Viscosity @ 40°C



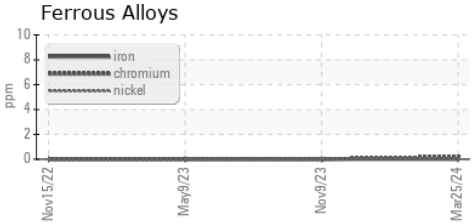
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	LIGHT
Sand/Dirt	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	45	**46.7**	47.7	46.5

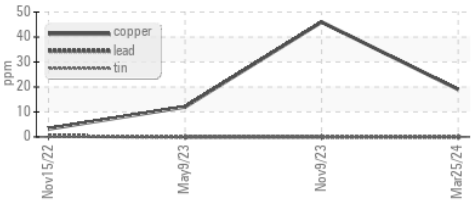
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

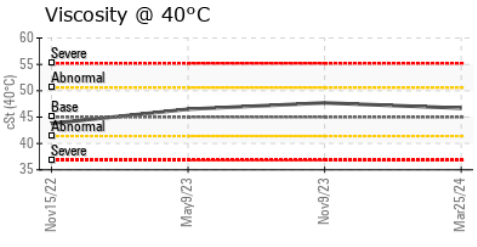
Ferrous Alloys



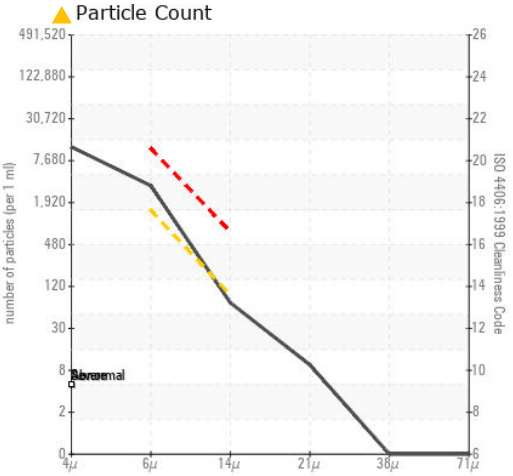
Non-ferrous Metals



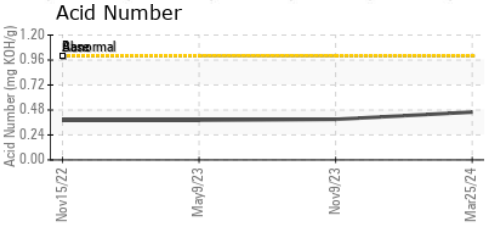
Viscosity @ 40°C



Particle Count



Acid Number



ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA015924
Lab Number : 06136399
Unique Number : 10955864
Test Package : IND 2 (Additional Tests: KF, PrtCount)
Received : 02 Apr 2024
Tested : 03 Apr 2024
Diagnosed : 04 Apr 2024 - Don Baldridge

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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