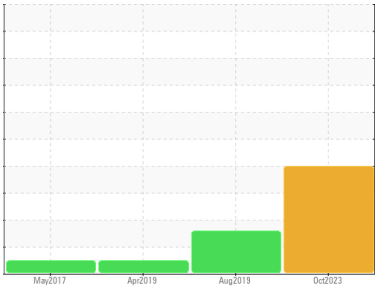
PROBLEM SUMMARY

Sample Rating Trend

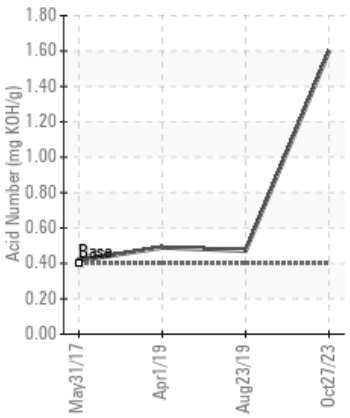


WATER

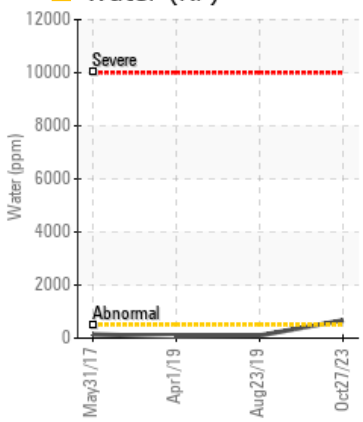
Machine Id
KAESER ESD 250 4353280 (S/N 1040)
Component
Compressor
Fluid
KAESER SIGMA (OEM) S-460 (--- QTS)

COMPONENT CONDITION SUMMARY

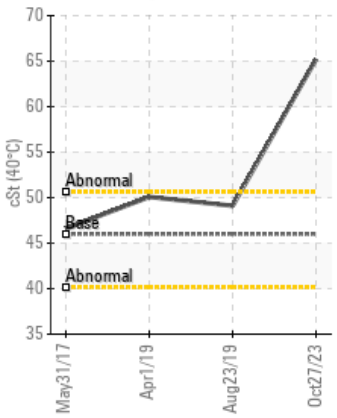
Acid Number



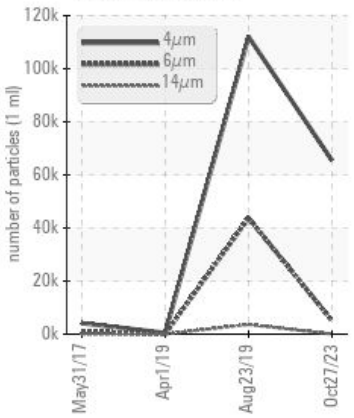
Water (KF)



Viscosity @ 40°C



Particle Trend



RECOMMENDATION

We advise that you check for a possible overheat condition. 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.

PROBLEMATIC TEST RESULTS

Sample Status				**ABNORMAL**	ABNORMAL	NORMAL
Water	%	ASTM D6304	>0.05	▲ **0.067**	0.010	0.006
ppm Water	ppm	ASTM D6304	>500	▲ **671.4**	100	60
Particles >6µm		ASTM D7647	>1300	▲ **5105**	▲ 43727	83
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ **23/20/12**	▲ 23/19	14/11
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	▲ **1.60**	0.472	0.490
Visc @ 40°C	cSt	ASTM D445	46	▲ **65.2**	49.1	50.08

Customer Id: RIVLOUKY
Sample No.: KCPA009125
Lab Number: 05997999
Test Package: IND 2

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Check For Overheating	---	---	?	We advise that you check for a possible overheat condition.

HISTORICAL DIAGNOSIS

23 Aug 2019 Diag: Angela Borella

ISO

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.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

01 Apr 2019 Diag: Doug Bogart

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the component. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

31 May 2017 Diag: Don Baldridge

NORMAL

Resample at the next service interval to monitor.All component wear rates are normal. The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the component. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report

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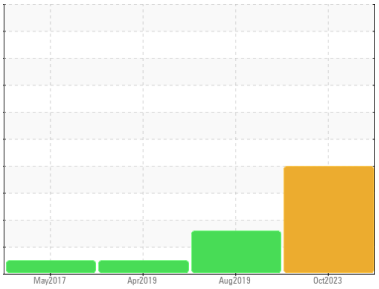
OIL ANALYSIS REPORT

Sample Rating Trend



WATER

Machine Id
KAESER ESD 250 4353280 (S/N 1040)
Component
Compressor
Fluid
KAESER SIGMA (OEM) S-460 (--- QTS)

DIAGNOSIS

Recommendation
We advise that you check for a possible overheat condition. 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 above the recommended limit. The oil viscosity is higher than normal. The oil is no longer serviceable.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**KCPA009125**	KCP16694	KCP16837
Sample Date		Client Info		**27 Oct 2023**	23 Aug 2019	01 Apr 2019
Machine Age	hrs	Client Info		**33477**	22096	19802
Oil Age	hrs	Client Info		**0**	2300	6618
Oil Changed		Client Info		**N/A**	Not Changd	Changed
Sample Status				**ABNORMAL**	ABNORMAL	NORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	**2**	1	0
Chromium	ppm	ASTM D5185m	>10	**<1**	0	0
Nickel	ppm	ASTM D5185m	>3	**0**	0	<1
Titanium	ppm	ASTM D5185m	>3	**0**	0	0
Silver	ppm	ASTM D5185m	>2	**0**	0	0
Aluminum	ppm	ASTM D5185m	>10	**2**	1	0
Lead	ppm	ASTM D5185m	>10	**0**	0	0
Copper	ppm	ASTM D5185m	>50	**<1**	7	12
Tin	ppm	ASTM D5185m	>10	**0**	0	0
Antimony	ppm	ASTM D5185m		**---**	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	<1
Barium	ppm	ASTM D5185m	90	**0**	0	0
Molybdenum	ppm	ASTM D5185m		**0**	<1	0
Manganese	ppm	ASTM D5185m		**0**	0	<1
Magnesium	ppm	ASTM D5185m	90	**1**	0	0
Calcium	ppm	ASTM D5185m	2	**1**	0	0
Phosphorus	ppm	ASTM D5185m		**0**	<1	28
Zinc	ppm	ASTM D5185m		**9**	2	0
Sulfur	ppm	ASTM D5185m		**194**	20063	19068

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	**<1**	<1	<1
Sodium	ppm	ASTM D5185m		**<1**	<1	<1
Potassium	ppm	ASTM D5185m	>20	**<1**	<1	0
Water	%	ASTM D6304	>0.05	▲ **0.067**	0.010	0.006
ppm Water	ppm	ASTM D6304	>500	▲ **671.4**	100	60

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647		**65461**	112038	452
Particles >6µm		ASTM D7647	>1300	▲ **5105**	▲ 43727	83
Particles >14µm		ASTM D7647	>80	**28**	▲ 3625	11
Particles >21µm		ASTM D7647	>20	**9**	▲ 731	3
Particles >38µm		ASTM D7647	>4	**0**	▲ 27	0
Particles >71µm		ASTM D7647	>3	**0**	3	0
Oil Cleanliness		ISO 4406 (c)	>--/17/13	▲ **23/20/12**	▲ 23/19	14/11

FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	▲ **1.60**	0.472	0.490

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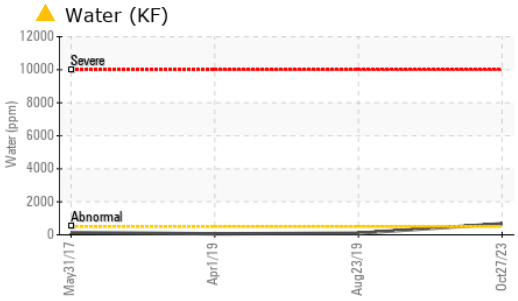
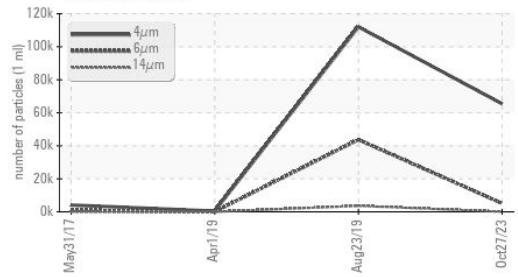
OIL ANALYSIS REPORT

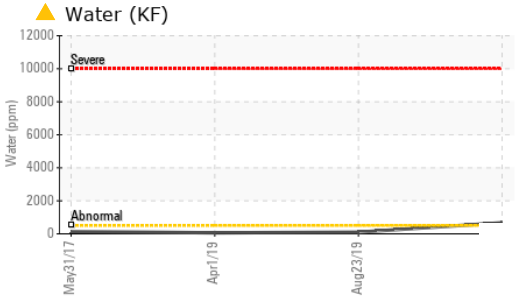
Water (KF)



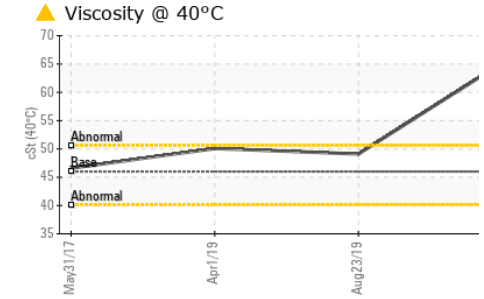
Particle Trend



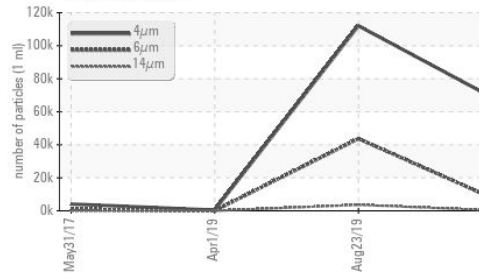
Water (KF)



Viscosity @ 40°C



Particle Trend



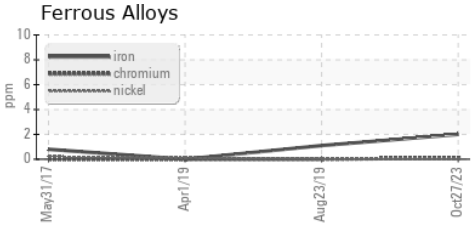
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**LIGHT**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**LIGHT**	VLITE	NONE
Sand/Dirt	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	46	▲ **65.2**	49.1	50.08

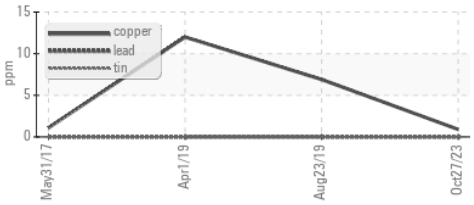
SAMPLE IMAGES	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

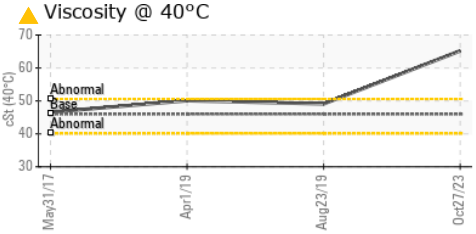
Ferrous Alloys



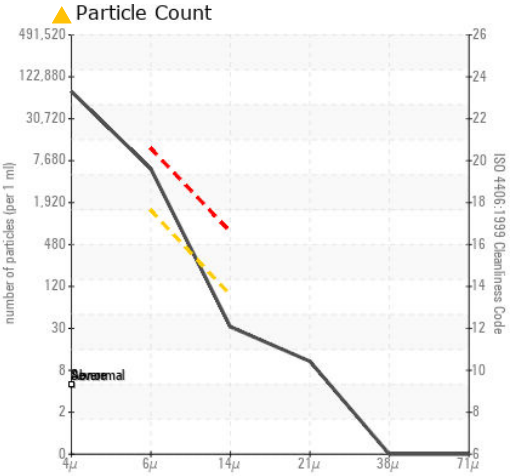
Non-ferrous Metals



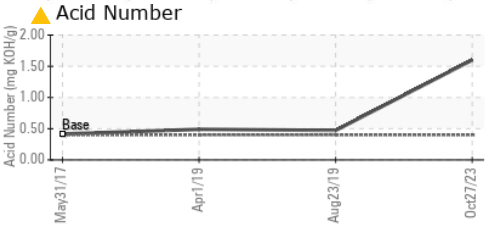
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KCPA009125 **Received** : 03 Nov 2023
Lab Number : 05997999 **Diagnosed** : 08 Nov 2023
Unique Number : 10726359 **Diagnostician** : Jonathan Hester
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)

RIVER METALS
2114 METAL LN
LOUISVILLE, KY
US 40206
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